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The Anne MacKenzie Oration.¹

MENTAL DISORDER: ITS FREQUENCY AND CAUSATION, WITH SUGGESTIONS FOR EARLIER RECOGNITION AND TREATMENT.

By W. ERNEST JONES,
Director of Mental Hygiene for the State of Victoria.

It is not given to everyone to express in adequate language his appreciation of an honour paid him. With a keen sense of my own limitations for the task before me, I can only plead a long experience amongst the mentally disordered and my desire to stimulate public interest in this difficult and neglected problem.

But for these reasons I should not have accepted the honourable but onerous task of delivering the

¹ Delivered at the Australian Institute of Anatomy, Canberra, on March 6, 1934.

Anne MacKenzie Oration for 1934. Such a method of perpetuating a revered memory must, I imagine, be a rare but still a most appropriate way for a son who has achieved great distinction in his chosen walk of life to pay homage to a beloved mother, an acknowledgement of his indebtedness to her help and sympathy. The recognition of this admirable sentiment can only increase the responsibility of the speaker to make his address worthy of that memory and of his subject and of his audience.

The title of my address would appear to indicate that I am proposing to claim your attention to an extensive course of lectures rather than to an hour's address. With such a time limitation I can put before you only the principal factors of this great sociological problem, which can be successfully attacked only by a campaign of research, by instruction of the public, as well as of the medical profession, and by the inculcation of eugenic ideals.

Two characteristics of mental disorder are its variability and the difficulty of achieving accurate

diagnosis and prognosis. There is so little consistency in the various syndromes, the neuroses and psychoses seem to fade into one another almost imperceptibly, so that an accurate classification is difficult of attainment. I propose, therefore, to treat my subject on the broadest possible lines and to refrain from fine differentiations, nor shall I resort to the use of the complex phraseology of the modern psychotherapist.

In an address of two years ago to a church congregation, I chose for my subject "Our Changing Constitution". I endeavoured to show how various diseases waxed and waned, that new ailments were coming to light and, on the other hand, that former infections seemed to be disappearing or becoming almost innocuous. Necessarily, as my experience has been greater in this direction, I put before my audience important questions of disorders and defects of the mind. I sought to show how our present mode of life and our modern civilization could be held responsible for some, at least, of the apparent increase in the number of individuals so affected.

I have no desire to burden you with a bewildering array of statistics, and I would have you note that I have used the word "apparent" because I am not at all sure that the increase in the certified insane and the weak-minded may not be partly explained by alterations in our statistical methods, in the manner in which we provide for the mentally sick, as well as in the altered character of our domestic affairs, the disappearance of the old-fashioned home, and the loosening of family ties rather than an actual increase in freshly occurring insanity out of proportion to the increase of population. Possibly, too, we are more prone today to regard as defectives those who fifty years ago would have passed muster, for unquestionably today we require a higher degree of mental capacity to obtain success. We must possess an intelligence quotient of considerably over 100 *plus*, and since the standard of life is ever rising, it follows that a greater number must fall below the normal. This will continue to be the case unless, by greater eugenic effort, we can produce a more resistant strain, or by improved educational methods and better environment we can obtain higher results with the existing material. The individual must be made to cope with a civilization exacting greater demands and entailing a much greater stress on the brain and nervous system.

To counterbalance this optimistic view, there is undoubtedly evidence to show that the present age is one of nervous strain and mental conflict, as the lunacy departments in all those countries where reliable records are kept would appear to indicate.

In a recent address Lord Horder stated his opinion that in Great Britain there was one insane person in every 200 of population, one feeble-minded person in every 120, and one unemployable person in every 10. This means that 11.2% of the population are a drag and a responsibility on the rest of the community. A mental hygiene bulletin published in the United States of America in 1928

reported that there were 900,000 beds in hospitals and institutions in the States, and that 400,000 of these were for persons with nervous and mental conditions. The resulting increment of the latter class of patient was then over 20,000 annually. Later reports issued by the Mental Hygiene Council in America appear to show that even these figures are being added to at an amazing rate.

A recent pronouncement in *The British Medical Journal* concerning this question in the United States of America declares that at least 1% of the total population is deficient and that of 25,000,000 children of school age, that is to say, between six and fourteen years, no less than 2% are deficient, and in some of the States the percentage of children requiring special education is placed as high as 8%. In the report on the extent of mental deficiency which I had the honour to present to the Federal Health Department in 1928, the figures, although on a much smaller scale, approximated the American percentages. The report claimed that whilst there were 4,683 imbeciles and low grade cases in various institutions in Australia, there were 22,217 children of school age mentally deficient and requiring special instruction suitable for their needs, out of a total of 1,460,000 children who were attending school. This gives a percentage of 2.89, which, you see, corresponds very closely with the American figures and also with those shown in the reports emanating from the English Board of Control.

As an illustration of how these aggregations occur, I would quote one authentic instance.

In the Bell Street day school for mentally deficient children we have records that show that twelve children of one family have all gone to that school instead of to the ordinary State school. These children are the offspring of the union of an alcoholic father with a half-witted mother. This is a combination which I regard as the most disastrous possible from a eugenic and economic standpoint.

Whereas in 1900 there were in England and Wales 106,611 certified insane, at the end of 1932 there were 148,775 mental patients and 36,158 mental defectives known to the Board of Control. Our Australian statistics show much the same proportion, and at the end of 1932, in every 1,000 of population the certified insane ranged from 2.4 in South Australia to 3.81 in New South Wales, and the annual rates of admission per 10,000 of population were from 4.15 to 5.77 in the same States. The incidence in the older and more settled States is necessarily high, especially as the population tends to be feminine and where the average age is higher.

To what specific causes can we attribute this accumulation of failures. The more usually accepted classifications place the causes into two principal headings—mental and physical.

Under the first heading we find the following causes: worry, anxiety, loss of friends and position, failure, disgrace, seduction and fear, all of which causes have necessarily greater effect where there is already some inherited tendency to mental trouble.

The physical causes are more numerous and varied, and include mental disorders arising at the various critical epochs of life—puberty, adolescence, motherhood, menopause and old age—the effect of such diseases as infections, syphilis, tuberculosis, cancer, influenza *et cetera*, toxic conditions and chronic affections, such as chronic tonsillitis, sinusitis and colonic infections.

Then there are the vices of alcoholism and drug-taking, the results of injuries and accidents, especially to the head; but, whilst there are many other less important causes of mental disorder, there are three great outstanding causal factors: first and foremost, heredity, the unfortunate possession of a neuropathic or psychopathic constitution passed on by insane, alcoholic or eccentric forebears; secondly, the disease we call syphilis, the result of the invasion of the body by the spirochete or *Treponema pallidum*; and thirdly, over-indulgence in alcohol.

An insane heritage, syphilis and alcoholism, a trinity of evil, either separately or, worse still, in fatal cooperation, outweigh so greatly all other causes that I purpose drawing your attention to

them to the exclusion of other factors. I do not propose to place before you graphically the part played by a defective inheritance; but, with the other causes, I can offer you simple tables which may obviate my talking statistics continually. Those dealing with general paralysis and alcoholism, I think you will admit, are not only interesting, but offer some excuse for any optimism on my part. You will notice in Table I how the numbers of general paretics have risen only to fall steadily in spite of more searching diagnostic methods, and in Tables II and III, I think you will admit that the figures point to an increasing temperance in our Victorian population.

Heredity.

The extent to which heredity plays a part in the production of mental disorder is very difficult to determine. The old time family medical practitioner knew all about his patient and the patient's family. The modern consultant is at a very distinct disadvantage in this respect, and he is rarely told the whole truth. The stigma of insanity is far too often a bar to the frank confession that there are

TABLE IA.

Showing the rise and fall in the number of cases of general paralysis of the insane admitted to the State Mental Hospitals, Victoria, during the years 1905-1932.

| Year. | Admissions. | | | Deaths. | | | Admissions. | Daily Average Number Resident. |
|-------|----------------------------------|----------|--------|----------------------------------|----------|--------|------------------------|--------------------------------|
| | General Paralysis of the Insane. | | | General Paralysis of the Insane. | | | All Forms of Insanity. | |
| | Males. | Females. | Total. | Males. | Females. | Total. | Both Sexes. | |
| 1905 | .. | .. | 16 | 15 | 1 | 16 | 738 | 4,455 |
| 1906 | .. | .. | 24 | 22 | 2 | 24 | 773 | 4,523 |
| 1907 | .. | .. | 42 | 19 | 3 | 22 | 728 | 4,571 |
| 1908 | .. | 5 | 53 | 43 | 3 | 46 | 739 | 4,645 |
| 1909 | .. | 2 | 44 | 50 | 4 | 54 | 765 | 4,653 |
| 1910 | .. | 11 | 68 | 48 | 4 | 52 | 802 | 4,716 ^a |
| 1911 | .. | 2 | 69 | 49 | 8 | 57 | 817 | 4,816 |
| 1912 | .. | 11 | 76 | 47 | 9 | 56 | 806 | 4,938 |
| 1913 | .. | 13 | 88 | 53 | 6 | 59 | 858 | 4,989 ^a |
| 1914 | .. | 17 | 83 | 50 | 9 | 59 | 807 | 5,046 |
| 1915 | .. | 8 | 68 | 68 | 8 | 76 | 824 | 5,131 |
| 1916 | .. | 2 | 57 | 57 | 12 | 69 | 772 | 5,148 |
| 1917 | .. | 5 | 56 | 53 | 9 | 62 | 762 | 5,145 |
| 1918 | .. | 8 | 44 | 40 | 10 | 50 | 762 | 5,159 |
| 1919 | .. | 5 | 41 | 44 | 9 | 53 | 745 | 5,187 |
| 1920 | .. | 7 | 54 | 43 | 7 | 50 | 864 | 5,210 |
| 1921 | .. | .. | 38 | 37 | 4 | 41 | 801 | 5,259 |
| 1922 | .. | 3 | 40 | 39 | 4 | 43 | 838 | 5,347 |
| 1923 | .. | 1 | 36 | 43 | 6 | 49 | 827 | 5,376 |
| 1924 | .. | 6 | 41 | 46 | 7 | 53 | 809 | 5,397 |
| 1925 | .. | 3 | 38 | 29 | 3 | 32 | 746 | 5,394 |
| 1926 | .. | 2 | 36 | 41 | 3 | 44 | 841 | 5,457 ^a |
| 1927 | .. | 2 | 36 | 27 | 2 | 29 | 825 | 5,533 |
| 1928 | .. | 5 | 40 | 20 | 3 | 23 | 877 | 5,624 |
| 1929 | .. | 1 | 22 | 15 | 1 | 16 | 868 | 5,679 |
| 1930 | .. | 6 | 32 | 10 | 1 | 11 | 881 | 5,827 |
| 1931 | .. | 5 | 29 | 20 | 5 | 25 | 835 | 5,850 |
| 1932 | .. | 3 | 26 | 11 | 4 | 15 | 782 | 5,845 |

^a Wassermann tests started in Victoria.

^b Treatment by "Salvarsan" becoming fairly general. ^c Treatment by malarial injection commenced.

TABLE IB.

Showing results of the malarial treatment of general paralysis of the insane at Mont Park Mental Hospital, Victoria.

Total Number of Cases—Males 308
Females 40

| Recovered. | | Relieved and Out. | | Improved, but Remain. | | Not Improved. | | Died. | | Still under Treatment. | |
|------------|---------|-------------------|---------|-----------------------|---------|---------------|---------|-------|---------|------------------------|---------|
| Male. | Female. | Male. | Female. | Male. | Female. | Male. | Female. | Male. | Female. | Male. | Female. |
| 65 | 10 | 81 | 3 | 29 | 7 | 36 | 5 | 92 | 15 | 5 | .. |

N.B.—Included in the number of male deaths are ten cases who were relieved, but died from other causes.

one or more cases of mental disorder in the family. Consequently it is only the enthusiastic, scientific seeker after the truth who can find time to elicit the extent of the neuropathic inheritance.

The statistics of the Victorian department show hereditary influence in 11% or 12% of the annual admissions, but some years ago an intensive study of a small group, undertaken by a former medical

TABLE II.

Showing number of cases in which alcoholism is considered to be the prime factor in the mental disorder of patients admitted into State Mental Hospitals.

| Year. | Admitted (Cause Intemperance). | | | Total Admissions. | | | Percentage. | | |
|----------------|--------------------------------|----------|--------|-------------------|----------|--------|-------------|----------|--------|
| | Males. | Females. | Total. | Males. | Females. | Total. | Males. | Females. | Total. |
| 1910 | 63 | 21 | 84 | 422 | 380 | 802 | 14.93 | 5.52 | 10.47 |
| 1911 | 59 | 38 | 97 | 425 | 359 | 817 | 13.79 | 8.87 | 11.57 |
| 1912 | 78 | 36 | 114 | 456 | 350 | 806 | 17.10 | 10.29 | 14.14 |
| 1913 | 96 | 43 | 139 | 464 | 364 | 858 | 19.43 | 11.81 | 16.20 |
| 1914 | 64 | 15 | 79 | 445 | 362 | 807 | 14.38 | 4.14 | 9.78 |
| 1915 | 35 | 21 | 56 | 434 | 390 | 824 | 8.06 | 5.38 | 6.79 |
| 1916 | 37 | 24 | 61 | 403 | 369 | 772 | 9.15 | 6.50 | 7.90 |
| 1917 | 38 | 10 | 48 | 482 | 360 | 762 | 9.45 | 2.77 | 6.29 |
| 1918 | 31 | 15 | 46 | 346 | 416 | 762 | 8.96 | 3.60 | 6.03 |
| 1919 | 42 | 8 | 50 | 384 | 361 | 745 | 10.93 | 2.21 | 6.71 |
| 1920 | 45 | 17 | 62 | 465 | 399 | 864 | 9.67 | 4.26 | 7.17 |
| 1921 | 31 | 17 | 48 | 383 | 419 | 802 | 8.04 | 4.05 | 5.98 |
| 1922 | 62 | 18 | 80 | 434 | 404 | 838 | 14.51 | 4.45 | 9.66 |
| 1923 | 61 | 17 | 78 | 470 | 357 | 827 | 12.98 | 4.76 | 9.43 |
| 1924 | 35 | 16 | 51 | 402 | 407 | 809 | 8.70 | 3.93 | 6.30 |
| 1925 | 32 | 15 | 47 | 399 | 347 | 746 | 8.02 | 4.29 | 6.30 |
| 1926 | 31 | 15 | 46 | 434 | 407 | 841 | 7.14 | 3.85 | 5.46 |
| 1927 | 35 | 19 | 54 | 430 | 395 | 825 | 8.01 | 4.81 | 6.54 |
| 1928 | 42 | 11 | 53 | 483 | 394 | 877 | 8.69 | 2.79 | 6.04 |
| 1929 | 27 | 8 | 35 | 459 | 409 | 868 | 5.88 | 1.95 | 4.03 |
| 1930 | 26 | 19 | 45 | 425 | 456 | 881 | 6.23 | 4.17 | 5.11 |
| 1931 | 30 | 4 | 34 | 424 | 411 | 835 | 7.07 | 0.97 | 4.07 |
| 1932 | 16 | 9 | 25 | 432 | 350 | 782 | 3.70 | 2.57 | 3.19 |
| Totals | 1,016 | 416 | 1,432 | 9,854 | 8,896 | 18,750 | 10.31 | 4.67 | 7.63 |

TABLE III.

Showing alcoholic cases admitted to Melbourne Hospital, 1910 to 1933.

| Year ending 30th June. | Total In-patients. | Acute and Chronic Alcoholics. | | | | | | | | | Probable Alcoholics. | | | |
|------------------------|--------------------|-------------------------------|---------|--------|-------|---------|--------|----------------------------|---------|------------|------------------------------------------|--------------------------------------------|------------------------------------------------------|----------------------------------------|
| | | Discharged. | | | Died. | | | Total Discharged and Died. | | | Cirrhosis of Liver (b), Male and Female. | Cirrhosis of Kidneys (c), Male and Female. | Total of Alcoholic Cases (a, b, c), Male and Female. | Average over each Quinquennial Period. |
| | | Male. | Female. | Total. | Male. | Female. | Total. | Male. | Female. | Total (a). | | | | |
| 1910 | 6,162 | 165 | 113 | 278 | 2 | .. | 2 | 167 | 113 | 280 | 33 | 87 | 400 | 607 |
| 1911 | 6,519 | 293 | 151 | 444 | 8 | 4 | 12 | 301 | 155 | 456 | 43 | 140 | 639 | |
| 1912 | 6,922 | 443 | 170 | 613 | 7 | 1 | 8 | 450 | 171 | 621 | 50 | 203 | 874 | |
| 1913 | 6,480 | 183 | 94 | 277 | 15 | 11 | 26 | 198 | 105 | 303 | 64 | 229 | 606 | |
| 1914 | 6,626 | 101 | 58 | 159 | 9 | 2 | 11 | 200 | 90 | 290 | 44 | 182 | 516 | 430.4 |
| 1915 | 6,648 | 190 | 96 | 286 | 21 | 10 | 31 | 211 | 106 | 317 | 32 | 163 | 512 | |
| 1916 | 6,661 | 155 | 80 | 235 | 19 | 2 | 21 | 174 | 82 | 256 | 28 | 212 | 496 | |
| 1917 | 5,841 | 95 | 35 | 130 | 5 | 2 | 7 | 100 | 37 | 137 | 24 | 145 | 306 | |
| 1918 | 6,646 | 166 | 51 | 207 | 7 | 1 | 8 | 163 | 52 | 215 | 24 | 144 | 385 | |
| 1919 | 7,020 | 186 | 44 | 230 | 3 | .. | 3 | 159 | 44 | 203 | 24 | 228 | 455 | 452.6 |
| 1920 | 6,945 | 222 | 146 | 368 | 6 | .. | 6 | 228 | 146 | 374 | 24 | 157 | 555 | |
| 1921 | 6,496 | 274 | 123 | 397 | 1 | .. | 1 | 275 | 123 | 398 | 38 | 259 | 695 | |
| 1922 | 6,446 | 67 | 23 | 90 | .. | 1 | 1 | 67 | 23 | 90 | 23 | 112 | 225 | |
| 1923 | 7,181 | 186 | 61 | 246 | 1 | 1 | 2 | 186 | 62 | 248 | 47 | 203 | 496 | |
| 1924 | 7,136 | 137 | 33 | 170 | 3 | .. | 3 | 140 | 33 | 173 | 47 | 100 | 320 | 331.6 |
| 1925 | 7,052 | 119 | 45 | 164 | 3 | 1 | 4 | 222 | 46 | 268 | 36 | 93 | 297 | |
| 1926 | 7,492 | 87 | 36 | 123 | 1 | .. | 1 | 88 | 36 | 124 | 32 | 168 | 324 | |
| 1927 | 7,973 | 139 | 32 | 171 | 4 | 2 | 6 | 143 | 34 | 177 | 57 | 194 | 423 | |
| 1928 | 8,230 | 118 | 46 | 164 | 3 | 1 | 4 | 121 | 47 | 168 | 29 | 94 | 291 | |
| 1929 | 8,413 | 84 | 27 | 111 | 1 | 3 | 4 | 85 | 30 | 115 | 45 | 158 | 318 | 196.2 |
| 1930 | 8,217 | 52 | 16 | 68 | 3 | 2 | 5 | 55 | 18 | 73 | 32 | 107 | 212 | |
| 1931 | 7,870 | 36 | 8 | 44 | 5 | .. | 5 | 41 | 8 | 49 | 33 | 85 | 167 | |
| 1932 | 8,451 | 31 | 8 | 39 | 2 | 3 | 5 | 33 | 11 | 44 | 33 | 92 | 169 | |
| 1933 | 8,433 | 36 | 11 | 47 | 1 | .. | 1 | 37 | 11 | 48 | 43 | 106 | 197 | |
| Totals | 171,822 | 1,684 | 1,537 | 5,121 | 130 | 46 | 176 | 3,514 | 1,583 | 5,097 | 885 | 3,671 | 9,853 | |

officer, Dr. Callander, revealed that there were more than 40% in which a definite inheritance could be demonstrated. The researches of Alfred Mott into the question of inheritance show that a condition of "ante-dating" occurs in successive generations. For example, a family may show cases of insanity, such as manic depressive insanity, occurring in the fourth and fifth decades, and may, in the next generation, show cases of insanity generally of the type we speak of as *dementia praecox* in the second and third decades of life. This may serve to explain how unsatisfactory, from the point of view of permanent recovery, are these cases in younger patients. It would appear as though Nature were determined to exterminate a degenerate stock. A similar and perhaps even more marked observation may be made in examining the family charts of congenital mental defectives.

Syphilis.

Of the second great cause of mental disorders and defects, syphilis, serious as its ravages undoubtedly are, I am disposed to take a very hopeful view, so far as the future is concerned. For some years I have been recording the numbers of general paralytics who have come to my department. Table II shows how the number of these cases increased up to 1913 and 1914 and that since that date there has been a marked diminution. This disease was first recognized after the Napoleonic wars. The apposition of the planets Mars and Venus can be paralleled by the fact that after each of our wars, and more particularly the war in South Africa, there was a marked increase in the number of cases of general paralysis in Great Britain, and doubtless in other countries as well. I was therefore inclined to believe that the Great War would have produced a flood of cases of a similar character, but that has proved not to be the case, in Australia at any rate, and the indications are that better hygiene and discipline and the extensive and intensive treatment by the "Salvarsan" group of remedies is producing a beneficial effect. Furthermore, we are now faced with the fact that this disease, which we formerly regarded as completely incurable, is capable of being attacked quite successfully by more modern methods. I refer, of course, to the malarial treatment of general paralysis which has been fairly extensively undertaken in many countries and which originated in Vienna. Our experience in Victoria has been interesting, and I must burden you with a few more figures which you will find in the leaflet of statistical returns which you have before you. These results may not be considered as indicating a striking success, but when you consider that but for this treatment nearly all those patients would now, in all probability, be dead, I think you will admit that a wonderful progress in treatment has been made and giving promise of still greater results in other neurological conditions also.

We have noticed that in the military cases of general paralysis the patients are considerably younger than in the civilian group. We realize how

necessary it is that treatment should begin as early as possible before much dementia has been reached, that the grandiose, exalted type of case, although few in number, gives the best results, and juvenile patients so rarely make any improvement at all, that we believe that they should not be treated with malaria. In spite of the great improvement that occurs in many of the cases, it is strange to find how often it is that we continue to get a positive Wassermann reaction in the blood, and even the cerebro-spinal fluid may take as long as two years to clear up. Still, the results have been so striking that the medical staff at Mont Park have ventured on making an earlier attack on the spirochaete in the primary stage. Quite recently in that hospital we have treated a severe primary chancre of the lip by malarial injection without exhibiting any other remedy, and it was gratifying to find how readily the sore healed and how well the patient's health responded to the treatment. The patient is being kept under close observation. I may say he is not a mental patient and that he volunteered for the experiment. We hope to show that in malarial treatment we have another potent remedy at hand to deal with this dread disease in its earliest stages.

Lind, a former pathologist in our department, conducted a very large number of *post mortem* examinations in cases of congenital mental deficiency, and he came to the conclusion that 50% of the grosser cases of idiocy and imbecility were definitely the result of syphilis.

If we considered the improvements that have been brought about by modern treatment methods in all cases of syphilitic infection, as shown by the progress made with general paralysis, may we not ask whether we are not justified in believing that still closer research and experience will show us the way to the successful elimination of syphilis from every civilized community?

Alcohol.

The misuse of alcohol as a cause of insanity will be everlastingly the subject of considerable divergence of opinion. Thirty years ago, alcohol as the chief exciting factor in the production of mental disorders was estimated to be the cause in 20% of the patients admitted to state hospitals *et cetera*. Today the number has dropped to 4% to 6% of the annual admissions. This may in part be due to the realization that the abuse of alcohol is sometimes a symptom of mental disorder or purely a condition secondary to some other neurotic malady. For example, I have a recollection of an incurable stammerer who found that, when under the influence of liquor, he became of fluent speech. Patients with general paralysis not infrequently in the early stages have given way to alcoholic excess, the combination being extremely disastrous, and the same thing may be said with regard to the returned soldier suffering from that hydra-headed disability that we call shell-shock. Such men cannot indulge in alcohol with impunity.

The number of inebriates admitted to the government institutions is steadily diminishing, and today a large proportion of the applicants to me for admission to some institution or other appear to be suffering from an acute gastritis resulting from the drinking of "pinkie". This abominable concoction consists of a raw sweet wine fortified by crude alcohol. It is sold very cheaply in wine shops and in inferior hotel bars, and the result is almost as disastrous as is the drinking of methylated spirits. With regard to the character of this wine, I am not at all sure that the health regulations are not somewhat to blame in fixing a minimum percentage of alcohol in all wines.

Examination of the records of the Melbourne Hospital confirm the observation that alcoholic excess is becoming less frequent. The number of patients annually admitted therein suffering from acute or chronic alcoholism has dropped from an average of 607 in the second decade of this century to an average of 186 in this decade. Furthermore, these figures are confirmed by the very considerable reduction in the number of those suffering from cirrhosis of the liver and kidneys, the great majority of which cases are undoubtedly due to alcoholic excess.

During the war years we noticed a very considerable diminution in alcoholism. The immediate post-war years increased the numbers to some extent, but more recently, during the last nine or ten years, there has again been a very distinct drop in the number of cases brought to the knowledge of my department, and also to such hospitals as the Melbourne Hospital.

Alcohol is not a thing that should be banished from our existence. Its value to the medical profession is incalculable in the treatment of many diseases, and in small doses is merely a pleasant stimulant, but so far as the health of the nation is concerned, its prolonged use, or rather should I say its misuse, makes it a complementary factor to parental degeneracy; further, it is certain that it will bring to light the existence of a psychosis or neurosis which might have remained unnoticed. We see very many less cases of that form of acute alcoholism known as *delirium tremens* than we saw thirty or forty years ago, but, on the other hand, we probably get more patients with alcoholism of the Korsakov type, and generally this happens with female patients.

Our *Inebriates Act* also deals with the habit of drug-taking, the definition of an inebriate being "a person who habitually uses alcohol or narcotic drugs to excess". Although occasionally we hear of the increase of drug-taking, such is not our experience in Victoria. The drinking of laudanum and chlorodyne and the smoking of opium appear to have ceased entirely, and morphinism seems to have become a trade vice, inasmuch as the greater number of individuals brought to our notice suffering in this way are either members of the medical profession or dentists, chemists or trained nurses.

Restrictive legislation does not appear to be of material benefit towards making a nation temperate, as the experience of the United States of America clearly shows. What is essential is that we should deal much more drastically with the individual offender, especially seeing the menace that an individual under the influence of alcohol can be when he is in command of a high powered motor car.

I wish to draw your attention to the statistical tables which have been circulated and which, I think, possibly need some interpretation, even though I may be guilty of some repetition.

When I took up duty in Victoria in 1905 I was somewhat surprised to find what I regarded as a comparatively small number of patients with general paralysis in the hospitals at that time. That they were duly recognized as such is shown by the fact that the number of deaths corresponded closely with a number of those diagnosed on admission as suffering from general paralysis, but cases of juvenile general paralysis were not recognized, and I pointed out to my staff the fact that there were such cases in the institutions. The first I found here were in the Children's Cottages at Kew. Year by year the numbers of paretics increased, and during the period between 1909 and 1914, when we commenced to examine these patients by subjecting their blood to the Wassermann test, the numbers rose very considerably. But from 1915 onwards you will notice that the numbers fell steadily, and I point to the coincidence that in 1913 treatment in Victoria of syphilitic diseases by "Salvarsan" and allied remedies had become universal.

I do not think that I am mistaken in claiming that syphilis is becoming more uncommon, since the tables show that the cases diagnosed on admission have steadily decreased in numbers which correspond closely with the cases returned as deaths from general paralysis, and in the metropolitan institutions in Victoria all deaths are followed by *post mortem* examination. My contention is that we can regard the number of cases of general paralysis as an index of the extent of syphilis in the community. Various authorities give the number of syphilitics developing general paralysis as being from 2% to 4% of the total number of those infected. A few years ago I compared our figures with those of the notifications to the Health Department of Victoria, and came to the conclusion that 2% of the syphilitics in Victoria developed general paralysis. This small proportion, I think, may be taken as supporting the view that I have always held, that whilst it is necessary for production of general paralysis that there should be a syphilitic invasion of the brain, some other existing or precipitating cause is also required for the development of general paralysis; and this we find more particularly in the case of soldiers whose military experiences have been of a nerve-shattering character, or where brain injury or alcoholism has also been present.

With regard to our malarial treatment of general paralysis, the proportion of those who have recovered and of those who are "relieved" is much the same as we find in the returns issued by the Board of Control in Great Britain. Our work was started tentatively at Sunbury, but the malarial strain was not satisfactory, and it was not until we again took up the work at Mont Park in the year 1926 that we succeeded in getting a strain of malaria which proved successful. This was obtained from New South Wales from a patient suffering from malaria of the benign tertian variety. We have kept this strain going ever since and have been able to forward it to South Australia and Western Australia. At times we have been within a measurable distance of losing the strain, but luckily we have always succeeded in keeping it in action. We have tried it with but fleeting effect in cases of *dementia praecox*.

With regard to the tables dealing with alcoholics, you will notice how in times of prosperity we have had a large number to treat. Further, you will notice that during the war years there was a wave of temperance. Shortly after this the numbers began to mount up again, and then more recently, in the present decade, there has been a distinct diminution of alcoholism. Whether this is due to a healthier outlook in life, or whether we are less prosperous, and whether alcohol, being much more expensive, has enforced temperance, I am not disposed to speculate, but my own conviction is that we are very much more temperate than were our fathers and grandfathers.

In Table III, I have included all cases of cirrhosis of the liver and kidneys as being probably alcoholics. I think that the medical members of my audience will agree with me that this was a reasonable view to take. This table also supports my optimism with respect to this potential cause of insanity, that it is steadily diminishing. The Melbourne Hospital may be taken as serving a mixed population of over 400,000 souls from the city, the suburbs and even country districts, so that its clientele may be regarded as typical of the whole State. Further, there is a very decided diminution in the numbers of persons arrested annually for drunkenness in Victoria. I do not think it is possible to attribute this indication of improvement as due to any alteration in police procedure.

So far, I have put before you the principal causes of mental disorders and their sociological importance. I hope I have not confused the issue by discussing both mental disorders and defects. Truthfully, these cannot be separated, especially when one is endeavouring to find a solution of the two problems. Such are now the objectives of the councils of mental hygiene which were started soon after the beginning of the century, first of all in the United States of America and then in England, and more recently in Australia also. In turn, the States of Tasmania, Victoria and New South Wales have established mental hygiene councils which are

in harmony with countries overseas. They consist principally of medical practitioners, educationists and social service workers and other public-minded philanthropists who realize the helplessness of the public services to cope successfully and unaided with the immensity of these problems.

To some extent the councils have replaced the eugenic societies, and possibly their objectives are of a more practical and attainable character, being aimed at prevention rather than cure. Such important matters as child study and vocational training are in the front page of their programmes. There is, however, one subject in which they might follow the lead of the eugenic societies, and that is the investigation of problems of heredity. Medical men are constantly requested to advise on the question of marriage, and it always seems to me that we have very little definite knowledge on which to base a recommendation. One of my medical officers, Dr. Brothers, has a chart of a family with cases of Huntington's chorea appearing nineteen times in five generations. I must confess I should not like to be asked to say whether any one member of this family should or should not marry any more than I should like to recommend celibacy to an individual whose family tree shows one or two rotten branches, if the individual himself appears to be healthy in mind and body and is desirous of marrying an entirely suitable mate.

I would recall an interesting historical fact of which possibly few people are aware. For centuries the Armenians prohibited marriage until the proposed participating parties had undergone a thorough medical examination and were both pronounced fit to enter into the holy state of matrimony. Possibly this wise precaution is responsible for the continued existence of a nation which, for generations, has been subject to the most extensive persecutions and misfortunes. At any rate, such a course appeals to me very much more than does the panacea so often put before the public, of the sterilization of mental deficients. A recent report of the British Mental Deficiency Committee discourages this project, and personally I feel that it can be of service only in an extremely small number of cases. The obviously imbecile will not require sterilization, and the very high grade defective, who may be desired in marriage, is so nearly normal in the majority of cases that the psychiatrist who recommends sterilization would in most cases be the subject of very unpleasant criticism. Frankly, it means this, that in order to be effective, sterilization would have to be applied to such a very large number of persons that the public outcry would soon make such a procedure impossible.

Seven years ago New Zealand appointed a Parliamentary Commission to inquire into the question of mental deficiency. Sterilization was included in its terms of reference. When subsequently a Mental Deficiency Bill was brought forward, the clauses proposing the legalization of sterilization were summarily rejected.

Sterilization was made lawful in California in 1909; it was undertaken as a therapeutic measure quite as much as for eugenic reasons. Several other States followed suit and passed laws on the subject, but in many the laws have been repealed or have been allowed to fall into disuse. Nevertheless, sterilization is still in force, but chiefly in the case of sexual offenders. It is probably too soon to speak of results. Unfortunately the greatly increased statistical returns of insanity and feeble-mindedness in the States do not warrant any optimism for extended trial of this measure.

I propose to be dogmatic and to say that our principal need in this day is knowledge and publicity of the right kind. First and foremost I would stress the need for increased teaching in psychology and psychiatry to the medical student. In New South Wales, I am glad to say, they have a Professor of Psychiatry and a diploma of psychological medicine. I wish, however, that this course could be made more accessible to students from other universities. At present this is not possible. Unfortunately, the number of practitioners coming forward in other States for such a diploma would not justify the establishment of a course at each or any other university. I regret, too, that the University of Melbourne has practically eliminated psychiatry as one of the special subjects for the degree of doctor of medicine, but, on the other hand, I am glad to say that a course of lectures in psychology has been established in the third year and attendance at certain psychiatric clinics has been made possible; this is in addition to the usual course of lectures in psychiatry given in the mental hospitals. Furthermore, special lectures in the psychoneuroses have also been arranged for as well as attendance at the Children's Hospital, where there is a clinic for mentally deficient children and where intelligence tests are undertaken by competent psychologists.

We have made in Victoria quite recently a step which, I think you will agree, is in the right direction. The Lunacy Department is now known as the Department of Mental Hygiene and an endeavour is being made to eliminate the terms lunacy, insanity and all references to police court procedure. We are moving in the direction of the voluntary treatment of mental disorders. I think I may claim that with our receiving house and voluntary boarder methods we have made advances equal to those of any other country. Our next step should be a purely voluntary hospital, which could be worked in conjunction with the out-patient psychiatric clinics now established in each of the large hospitals. At the same time I admit that calling a department by a more euphonious name does not mean that it is more efficient; but I certainly think that it gives that department the opportunity to become increasingly progressive and to embrace in its activities all questions concerning the treatment of mental disorders, mental defectives, border-line cases, epileptics, inebriates and drug addicts. I hope that some day these depart-

ments will be administered by expert boards and not be entirely at the financial mercy of the politician or the domination of the trades union. I see very good reasons for Federal intervention in certain respects. For example, the lunacy laws should be uniform and reciprocity be provided between the various States. There should be interstate recognition of medical certificates. I need hardly tell the medical members of my audience that the medical practitioner who is not registered in both of the States of New South Wales and Victoria would not be able to sign a certificate for a patient if, for the time being, he happened to be on the wrong side of the River Murray.

Occasionally difficulties arise as to the settlement of a patient, by which I mean that we should be able to decide whether the State in which he has been residing when he became mentally affected should be required to accept the financial responsibility for that patient. He may only recently have gone to this State, and there is no compulsory procedure by which he can be returned to the State in which he has always lived. The method which is in vogue in the Old Country of recognizing a period of time for the settlement of a patient in a country would be easily adapted to our requirements in Australia.

Senility.

And now I would come to the last stage of my discourse and touch on the treatment of senility. We have benevolent asylums in plenty in this country, and in many cases useful homes they are as providing refuges for poor mankind in this the

... last scene of all,

That ends this strange eventful history,

Is second childishness and mere oblivion;

Sans teeth, sans eyes, sans taste, sans everything!

My quarrel with most benevolent asylums is that they do not make sufficiently good nursing provision for these very old people who, during the last stages of their lives become restless and troublesome and who too often are committed to a mental hospital, whereas with proper nursing they might be easily retained in the benevolent asylum and so avoid the stigma of certification. From 20% to 25% of the patients admitted annually to our Victorian hospitals are definitely senile, and 20% of the deaths are directly due to old age. Further, I would draw your attention to the anomaly that when these old people are committed to a hospital, the pension which they have enjoyed possibly for years is taken away from them; and the same thing occurs with the invalid pensioner. I candidly confess that I cannot see why this should be, and I seize my opportunity to speak in this, the home of Federal legislation, in order to place before our law-makers the fact that the Federal Government has a duty in these respects which up to the present it has most skilfully avoided. I would refer once more to the condition of affairs in England and Wales. There the central government provides a *per capita* payment to the counties and boroughs, on whose

shoulders is laid the necessity for providing for the mentally afflicted. Years ago, when the average cost was only eight shillings and sixpence per week for certified patients in the county asylums, the central government provided a *per capita* payment of four shillings weekly, and I would suggest that the Federal Government, when it takes over, as it has done to a great extent, the direction of public hygiene, should also have regard to the equally important question of mental hygiene, even if it only be by subsidizing State departments.

Hospital Auxiliaries.

Before concluding, I would refer to another promising development in the care of the insane. Recently, a hospital auxiliary, functioning in much the same way as those attached to general hospitals, has been formed in connexion with the Mont Park Mental Hospital. Its first success provided the institution with a "talkie" apparatus, which, I need hardly tell you, is the source of enormous satisfaction to inmates and officials alike. Another auxiliary has taken up enthusiastically the question of occupation therapy. I can only hope that these examples will be followed in all other institutions and that sooner or later an after-care association will be formed, charged with the important duty of looking after the interests of recently discharged patients, and more particularly with the task of finding them suitable employment. Furthermore, a convalescent home, either at the seaside or in the hills, would be an invaluable adjunct to hospital treatment.

Conclusion.

It not infrequently happens that the occurrence of some bodily disorder brings a man to his senses; this cannot happen with mental disorder from the essential nature of the illness itself. The resulting disorder of conduct necessitates too often an appeal to the law for power to interfere with the liberty of the subject. The consequent legal processes frequently inhibit prompt measures for obtaining appropriate treatment, time is lost until certification has become obviously necessary, with detrimental results to the sufferer. The real solution will come with the recognition of the fact that body and mind are one and indivisible, and that the

physician of the mind must find his most valuable consulting room within the walls of the general hospital.

BROUGHTON HALL PSYCHIATRIC CLINIC: REVIEW OF ADMISSIONS DURING THE DECADE 1921-1931¹

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In this review I propose to consider in a general way various aspects of the management of voluntary patients. The paper is based on the first ten years' experience at Broughton Hall Psychiatric Clinic.

This institution was opened in 1921 for the admission, on a voluntary basis, of patients suffering from nervous or mental disorders. No statutory provision has yet been made to cover the treatment of uncertified patients in mental hospitals in New South Wales; Broughton Hall was initiated by departmental action, and only the broadest lines of administration were laid down.

During the first twelve months 124 patients were admitted, and during subsequent years, as the hospital became more widely known, the facilities were increasingly availed of, and for the present year it is expected that 600 patients will be admitted. The admissions for the decade 1921-1931 have been as shown in Table I.

By psychotic is meant cases that are certifiable for admission to a mental hospital, and from Table I it will be seen that such patients represented 64% of male and 67% of female admissions, whilst the non-psychotic cases represented 35% of male and 33% of female admissions.

The psychotic cases were diagnosed as shown in Table II.

The non-psychotic, that is, the non-certifiable, cases were diagnosed as shown in Table III.

It is interesting to compare the distribution of the psychotic cases under the different diagnostic headings with the distribution of diagnostic types

¹Read at a meeting of the Section of Neurology and Psychiatry of the New South Wales Branch of the British Medical Association on January 9, 1934.

TABLE I.

| Year. | Male Patients. | | | Female Patients. | | |
|-----------------|----------------|----------------|--------|------------------|----------------|--------|
| | Psychotic. | Non-Psychotic. | Total. | Psychotic. | Non-Psychotic. | Total. |
| 1921-22 | 61 | 11 | 62 | 53 | 9 | 62 |
| 1922-23 | 64 | 63 | 127 | 76 | 47 | 123 |
| 1923-24 | 59 | 50 | 109 | 105 | 59 | 164 |
| 1924-25 | 83 | 43 | 131 | 142 | 70 | 212 |
| 1925-26 | 101 | 54 | 155 | 155 | 91 | 246 |
| 1926-27 | 92 | 45 | 137 | 135 | 85 | 220 |
| 1927-28 | 107 | 49 | 156 | 163 | 89 | 252 |
| 1928-29 | 106 | 82 | 188 | 177 | 88 | 265 |
| 1929-30 | 126 | 70 | 196 | 203 | 65 | 268 |
| 1930-31 | 155 | 56 | 211 | 201 | 83 | 284 |
| Total | 949 | 523 | 1,472 | 1,410 | 686 | 2,096 |

TABLE II.

| Condition. | Male. | Female. |
|------------------------------------|-------|---------|
| Congenital mental deficiency | 26 | 66 |
| Epilepsy | 43 | 52 |
| General paralysis of insane | 98 | 28 |
| Manic states | 22 | 86 |
| Depressive states | 109 | 88 |
| Paranoid states | 172 | 432 |
| Alcoholic psychoses | 109 | 358 |
| Puerperal psychoses | — | 30 |
| Schizophrenia | 181 | 28 |
| Senile psychoses | 74 | 182 |
| Organic dementia | 73 | 50 |
| Total | 949 | 1,410 |

TABLE III.

| Condition. | Male. | Female. |
|-------------------------------|-------|---------|
| Neurasthenia | 245 | 199 |
| Hysteria | 144 | 381 |
| Compulsion neuroses | 45 | 32 |
| Drug addiction | 31 | 14 |
| Neurological conditions | 58 | 57 |
| Other diseases | — | 3 |
| Total | 523 | 686 |

among patients admitted to ordinary mental hospitals. This has been done in Table IV. In this table, for comparison, the admissions to other mental hospitals for the period 1922-1926 have been taken.

TABLE IV.

Showing comparison of diagnostic distribution of psychotic voluntary patients with psychotic certified patients.

| Group. | Male. | | Female. | |
|----------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| | Voluntary Psychotic Percentage. | Certified Psychotic Percentage. | Voluntary Psychotic Percentage. | Certified Psychotic Percentage. |
| Mental deficiency .. | 2.7 | 9.9 | 4.7 | 8.7 |
| Epilepsy .. | 4.5 | 4.6 | 3.7 | 3.5 |
| General paralysis .. | 10.0 | 8.5 | 2.0 | 1.2 |
| Manic states .. | 2.5 | 9.5 | 6.1 | 16.5 |
| Depressive states .. | 21.0 | 6.6 | 34.6 | 12.5 |
| Paranoid states .. | 16.2 | 28.2 | 23.5 | 33.0 |
| Alcoholic states .. | 11.5 | 7.9 | 4.1 | 3.2 |
| Puerperal states .. | — | — | 2.1 | 3.0 |
| Schizophrenia .. | 13.8 | 7.7 | 9.8 | 5.5 |
| Senile states .. | 7.8 | 10.3 | 5.8 | 9.4 |
| Organic dementia .. | 7.5 | 5.8 | 3.4 | 2.4 |
| Total .. | 99.5 | 99.0 | 99.8 | 98.9 |

Examination of this table shows that, speaking generally, the same type of psychotic patient is admitted to Broughton Hall as to the other mental hospitals. However, certain differences are noticed.

1. The percentage of patients with mania admitted to Broughton Hall is much less than the proportion amongst certified admissions. This is attributable: (a) to the fact that patients suffering from mania are lacking in insight and are not conscious of being mentally disordered and consequently do not seek treatment spontaneously, nor do they submit readily to the persuasions of their friends or relatives; and (b) manic patients are usually so restless and noisy that they disturb the peace and rest of other patients; consequently they

cannot be treated in a ward of mixed psychoses and psychoneuroses, but require segregation and isolation.

2. On the other hand, the proportion of depressed patients is much higher amongst the Broughton Hall admissions than amongst the admissions to other mental hospitals: 21% male and 34% female, as against 6.6% male and 12.5% female. Here the explanation is that the depressed patient is usually acutely aware of his illness, and either spontaneously seeks help or acquiesces in his friends' suggestion for treatment.

3. Paranoid states again are less common amongst the voluntary than the certified, the reason being that the patient lacks insight and is not very responsive to suggestions by relatives. However, it has been found that where depressive emotional states accompany paranoid psychoses the patient is more apt to seek treatment.

4. Senile states are in lower proportion amongst the voluntary than amongst the certified psychotics. This is due to the fact that it is not considered desirable to admit to Broughton Hall patients suffering from senile dementia, in view of the hopeless prognosis.

5. Proportionately rather more patients with general paralysis are admitted to Broughton Hall than to other mental hospitals. It has been found that most of the paretics admitted suffer from the simple dementing type of the psychosis and consequently are more or less impassive and amenable to ordinary ward rules.

6. It is interesting to find that the proportion of schizophrenics amongst our admissions is greater than amongst the certified patients. Here again the type is somewhat different to that met with in the ordinary mental hospital, being more frequently of the hebephrenic than katatonic or paranoid.

Considered from the point of view of the patient's attitude to admission to, and stay in, hospital, the following observations may be made.

1. Generally speaking, patients of all classes settle down to hospital conditions submissively; not infrequently however, there is an initial period of unsettlement and suspicion, which, however, generally does not last more than a few days. After these few days the patient either settles down or demands discharge. Occasionally it has happened that when discharge has been granted under such conditions the patient has applied for readmission within a short time. To give a concrete idea of the extent to which patients do not cooperate, all those who have been discharged within seven days of admission have been enumerated and classified according to diagnostic groups in Tables V and VI.

That is to say, 8% males and females are discharged from hospital within one to seven days from admission, and the great majority of these leave within the first four days. As shown in Table VI, these people are distributed amongst all diagnostic categories. Not all these patients left hospital of their own volition; in some cases, rela-

tively not many, the discharge was arranged by the hospital on account of the unsuitability of the patient for treatment.

TABLE V.
Showing patients discharged after staying in hospital.

| Period. | Male. | Female. |
|----------------|-------|---------|
| 1 day | 34 | 38 |
| 2 days | 15 | 32 |
| 3 days | 18 | 27 |
| 4 days | 18 | 28 |
| 5 days | 6 | 17 |
| 6 days | 11 | 15 |
| 7 days | 15 | 24 |
| Total | 117 | 181 |

TABLE VI.
Showing diagnostic classification of patients discharged within seven days of admission.

| Condition. | Male. | Female. |
|-----------------------------|-------|---------|
| Mental deficiency | 1 | 6 |
| Epilepsy | 2 | 4 |
| General paralysis | 11 | — |
| Manic states | 1 | 19 |
| Depressive states | 23 | 28 |
| Alcoholic states | 1 | 3 |
| Paranoid states | 18 | 31 |
| Puerperal states | — | 2 |
| Senile states | 3 | 4 |
| Schizophrenia | 8 | 10 |
| Organic dementia | 5 | 5 |
| Nourasthenia | 19 | 19 |
| Hysteria | 8 | 31 |
| Compulsion neuroses | 10 | 2 |
| Drug addiction | 6 | 2 |
| Neurological | 3 | 5 |
| Total | 117 | 181 |

It may be concluded from the above that between 80% and 90% of patients admitted on a voluntary basis prove suitable for continued treatment on that basis.

As the result of our experience we find that in their attitude to treatment patients may be classified as follows:

Group I.—In Group I are those who actively desire treatment. This is the true voluntary class and includes principally the non-psychotic group, namely, psychoneuroses and neurological conditions, including early dementias and depressive states.

Group II.—In Group II are those who have active volition against treatment, comprising some manic states and many paranoid and paraphrenic conditions, in fact, those who lack insight into their mental disorder and whose attitude is one of suspicion and often aggression towards their environment.

Group III.—In Group III are those who are incapable of volition. This is an important class, including as it does those cases in which there is more or less profound disorder of consciousness, such as cerebral concussion, cerebral irritation, coma from toxæmia or disease, delirium of intoxication and disease, acute confusional states, including puerperal states and some hysterical manifestations.

Group IV.—Group IV includes those who are indifferent, such as patients with mental deficiency, dementia and some sufferers from schizophrenia.

Group V.—There are some patients who, while they do not themselves desire to undergo treatment or who are actually averse from seeking treatment, may submit themselves under the persuasion and, one suspects sometimes, the domination of a relative. Of this class, Group V, some settle down satisfactorily to hospital conditions.

Group VI.—Group VI includes minors. It is a debatable question at what age a minor should be considered capable of deciding for himself whether he will submit to treatment. In the case of children up to thirteen or fourteen years of age it has been customary to obtain from the parents their signature to the request for the admission of the child to hospital. In the case of minors between fourteen and twenty it has been considered desirable that the patient should consent to admission as well as the parents, and in most cases there has been little difficulty in this respect.

Table VII shows the number of males and females under the age of twenty-one admitted to this hospital during the period under review.

TABLE VII.
Showing minors admitted to Broughton Hall, 1921-1931.

| Age. | Male. | Female. |
|------------------|-------|---------|
| 7 years | — | 1 |
| 8 years | — | 2 |
| 9 years | 1 | — |
| 10 years | 3 | 3 |
| 11 years | 4 | 5 |
| 12 years | 5 | 10 |
| 13 years | 6 | 13 |
| 14 years | 10 | 27 |
| 15 years | 12 | 37 |
| 16 years | 8 | 26 |
| 17 years | 18 | 35 |
| 18 years | 17 | 41 |
| 19 years | 17 | 45 |
| 20 years | — | — |

There are certain practical difficulties in treating young children in wards occupied by adults suffering from mixed psychoneuroses and psychoses, and these difficulties are more pronounced in the case of males than of females; in consequence one has frequently to refuse admissions of juvenile patients. It would appear desirable that some provision be made either at Broughton Hall or at some other institution for separate accommodation for the treatment of children suffering from psychoneuroses and psychoses.

From the point of view of volition, these patients may be classified as follows: (i) those with active volition for treatment; (ii) those with active volition against treatment; (iii) those who are incapable of volition; (iv) those who are indifferent; (v) those who, though averse from entering hospital, do so on persuasion of relatives; (vi) minors.

During the decade 1921-1931, 1,426 males and 2,006 females were discharged, and Table VIII shows the condition on leaving hospital.

TABLE VIII.
Showing discharges 1921-1933.

| Condition. | Male. | Female. |
|----------------------|-------|---------|
| Recovered | 559 | 952 |
| Relieved | 340 | 382 |
| Not improved | 485 | 615 |
| Died | 39 | 54 |
| Total | 1,426 | 2,006 |

Conclusion.

Experience since the opening of the Broughton Hall Psychiatric Clinic has shown by the progressively increasing demand for accommodation that it has filled a public want. It has provided facilities for psychotic patients of all types to obtain treatment on a voluntary basis and has, moreover, catered for a class—the psychoneurotic—for whom previously there was no hospital accommodation.

EIGHTEEN MONTHS' EXPERIENCE WITH TRANSURETHRAL PROSTATIC RESECTION.

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THIS being a preliminary report of my personal experience with the McCarthy technique, it is not my intention on this occasion to discuss the development of transurethral prostatic surgery nor to evaluate the relative merits of the methods or equipment of the various noted urologists whose names are so intimately associated with endoscopic surgical history. Suffice it for me to state that the McCarthy visualized prostatic electrotome (Figure I) has proved so consistently satisfactory in action and productive of such uniformly splendid results that it is difficult to believe that any but minor technical improvements will be possible in the future. In like manner it may be added that the McCarthy surgical unit, a powerful vacuum tube electro-surgical machine, manufactured by the Compex Oscillator Corporation, of New York, has given perfect and constant service, proving in action over the whole period it has been employed to cut smoothly and easily under water and to cause coagulation without difficulty when required to do so. The remarkable smoothness of the cutting current probably accounts for its economy with regard to destruction of the cutting loops and to burning of the "Bakelite" sheaths. In this series of forty-seven cases only two loops have been damaged, and one "Bakelite" sheath, though still useful, was cast aside because a small notch had been burnt near the fenestrum, through using the loop after portion of the insulation had been broken.

My first operation by this method was performed on May 5, 1932, and up to December 1, 1933, I have operated on forty-seven patients at Lewisham Hospital, Christchurch, New Zealand, the results of which it is proposed herewith to place on record.

These forty-seven patients, grouped under the three main classes of bladder neck obstruction, are represented as:

| | |
|---------------------------------------------|-------------|
| 1. Prostatic carcinoma | 5 patients |
| 2. Prostatic fibrosis or median bar | 5 patients |
| 3. Prostatic hypertrophy | 37 patients |
| Total | 47 patients |

The mortality in this series was one death, 2.13%. As suggestions have on occasions emanated from various authors of articles on this subject, particularly in America, that mortality figures, being customarily limited to deaths occurring in hospital, are lower in transurethral prostatic surgery because of the recognized shortened period of hospitalization, it may be stated that such criticism cannot be admitted in this series, for, except for the one death reported herein, the remaining forty-six patients are still alive.

Prostatic Carcinoma.

Five patients suffered from carcinoma of the prostate; their ages were 71, 67, 74, 84, 60 years. The first patient, sixty-three years of age, operated on for this condition, was treated eighteen months ago; he is still alive and able to urinate naturally and comparatively easily, though second hourly frequency has returned in recent months.

This was a very advanced case of prostatic malignant disease with a history of nearly two years' duration. There was proliferation near the surface of the prostatic urethra, with submucous proliferation of the vesical neck and base. Suffering from persistent desire to urinate, accompanied by much pain, difficulty, delay and continuous dribbling, the patient was the obvious candidate for permanent suprapubic cystostomy. Residual urine was 480 cubic centimetres (sixteen ounces). After seven days' preliminary catheter drainage it was possible to introduce the "Bakelite" sheath under caudal and transsacral "Novocain" anaesthesia, and a total amount of ten grammes of tissue was removed. No difficulty was experienced then or post-operatively, and, the catheter being removed after three days, he passed urine easily and comfortably. He left hospital seven days after operation, when the residual urine was 15 cubic centimetres (half an ounce) and the frequency was every four hours by day and once to twice by night. Fifteen months later, as frequency with some delay and urgency began to reappear, it was decided to give a second clearance. Unfortunately, on this occasion it was found impossible to introduce the sheath, and nothing was done. He still can pass urine, but the act is accompanied by moderate pain, and he passes urine every two hours during the day and three times at night.

The four remaining patients with prostatic malignant disease were operated upon fourteen, nine, five and three months ago respectively and have been able to pass urine easily and comfortably. In all of these cases the diagnosis has been verified by pathological examination.

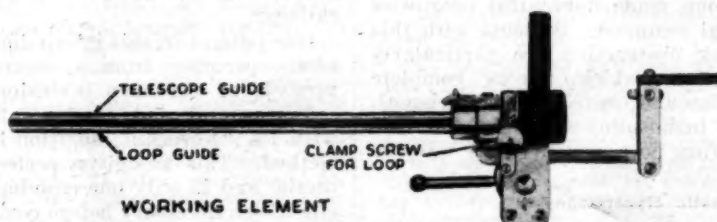
The patient of eighty-six years of age, operated upon five months ago, was very enfeebled, had intense frequency of micturition, with intervals of ten to fifteen minutes only, considerable delay, with a slow dribbling stream, and had no rest day or night. Preliminary examination with the McCarthy panendoscope revealed considerable enlargement at the floor of the vesical neck extending on to the trigone, with moderate enlargement of the left lateral lobe and marked enlargement of the right lateral lobe. An indwelling catheter was inserted for five days before operation was performed, when a total of eleven grammes

of tissue was removed from the floor and from both lateral lobes. The pathologist reported that "every piece of tissue showed extensive involvement with carcinoma". When the catheter was removed after seventy-two hours of uneventful post-operative convalescence, without bleeding or pyrexia, the patient was able to urinate easily and comfortably, and his intense frequency was replaced

anæsthesia. There was considerable obstruction at the bladder neck, with involvement of the base of the bladder, and there was marked ulceration, with tendency to bleed, of the right anterior and lateral vesical walls. There was no lateral lobe enlargement. A number 24 French whistle-tipped catheter was fixed in the urethra, and the first twenty-four hours after operation passed without incident,



Note position of loop. Size of sheath 28 Fr. Length of cut 1".



Working element with telescope withdrawn and loop removed.

FIGURE I.

by comparatively easy urinary relief at infrequent intervals. He left hospital eight days after operation, the residual urine being then 25 cubic centimetres (seven drachms). This patient is still well.

The last patient with prostatic malignant disease, aged sixty years, was operated upon three months ago. He had had operation elsewhere seven months previously by means of the Kirwin rotary punch. His condition was never

there being no colour of blood in the drainage; but free hemorrhage then began to occur. He was taken to the operating room, the "Bakelite" sheath was passed and the bladder was cleared of blood and clot by irrigation. The bleeding point was found to be a very active one in the before mentioned ulcerated area, close to the right ureteric orifice. There was no bleeding whatever from the operation area. After some difficulty the bleeding point was coagu-

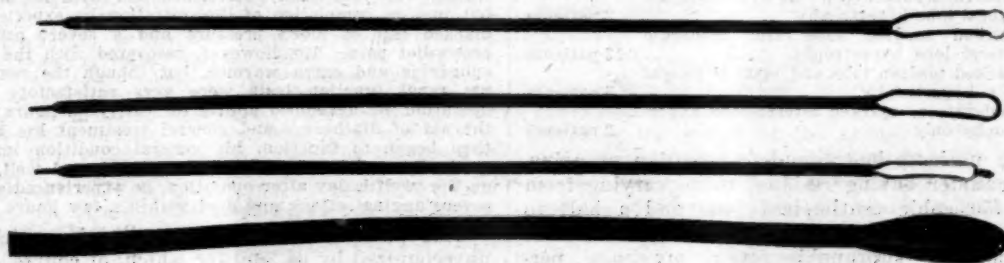


FIGURE II.

satisfactory, on account of a constant desire to urinate, with great difficulty, delay and pain, at intervals of half an hour day and night. There had been several episodes of bleeding. His general condition was enfeebled, residual urine was 225 cubic centimetres (seven and a half ounces) and, as he was in constant misery, it was decided to be a reasonable proposition to endeavour to relieve him. After a week of preliminary catheter drainage it was possible to operate without difficulty, approximately eight grammes of tissue being removed under caudal and transsacral

lated with the punctate electrode (Figure IIc) and the patient had an uneventful convalescence, leaving hospital ten days later, the residual urine being then 15 cubic centimetres (half an ounce), with frequency of micturition of two to three-hourly intervals. When he was seen one month later, residual urine was eight cubic centimetres (three drachms) and the patient stated that urination was easy, comfortable, and about four-hourly in frequency. Recent advice states that he is having no difficulty, though there has been mild bleeding on two occasions.

The condition of the other patients with prostatic malignant disease was straightforward; they call for no comment.

I have discussed these patients in some detail; as showing how these patients with advanced and hopeless malignant disease of the prostate, who at best previously would have suffered the inconvenience and discomfort and also the mental anguish of permanent cystostomy, have now, by the improved technique of transurethral surgery, had a fresh avenue of hope and comfort opened to them, to help brighten their remaining short months or years of life. The average period of hospitalization was twelve days. The average post-operative stay was seven and three-fifths days.

Median Bar or Prostatic Fibrosis.

Five patients, aged 34, 48, 55, 57, 67 years, suffered from median bar or prostatic fibrosis. The anaesthesia for all patients in this group was caudal and transsacral infiltration with "Novocain". All patients in this group made uneventful recoveries and merit no special comment. Patients with this type of vesical neck obstruction are particularly suitable for resection, which allows complete removal of obstruction and control of haemorrhage.

The average stay in hospital was eight and two-fifths days. The average post-operative stay was five days.

Prostatic Hypertrophy.

Thirty-seven patients suffered from prostatic hypertrophy. Their ages in decades were as follows:

| | |
|----------------------------------|-------------|
| 51-60 years | 4 patients |
| 61-70 years | 15 patients |
| 71-80 years | 12 patients |
| 81-90 years (81, 81, 84, 89, 85) | 5 patients |
| 94 years | 1 patient |

These patients may be further classified as follows:

| | |
|------------------------------------------------------------------------|-------------|
| (a) Moderate median lobe hypertrophy only | 3 patients |
| (b) Moderate median lobe and mild lateral lobe hypertrophy | 12 patients |
| (c) Albarran's subcervical lobe with moderate lateral lobe hypertrophy | 2 patients |
| (d) Marked median lobe and moderate lateral lobe hypertrophy | 13 patients |
| (e) Marked median lobe and marked lateral lobe hypertrophy | 5 patients |
| (f) Moderate to marked lateral lobe hypertrophy only | 2 patients |

Seven patients had complete retention of urine, the remainder having residual urine varying from 45 to 450 cubic centimetres (one and a half to fifteen ounces).

Preliminary suprapubic cystotomy was performed on two patients, one being, on account of poor general condition and severe suppression of renal function, unfit for even instrumental investigation, the other patient having a large vesical calculus measuring seven by four centimetres.

Two patients had vesical calculus, one of whom has been referred to above, and the other, with a "date stone" calculus, will be referred to later. Another patient, with marked median lobe and very marked bilateral lobe hypertrophy, had a large

vesical diverticulum. Preliminary catheter drainage with a number 9 or 10 soft catheter was carried out in seventeen patients, the periods of drainage being as follows:

| |
|--------------------------------|
| One for twenty-one days. |
| Two for fourteen days. |
| Two for seven days. |
| Twelve for three to five days. |

Preliminary cysto-urethroscopic investigation was carried out as a routine measure, with five exceptions, in which the symptoms were comparatively mild, the stage of prostatism reasonably early, and the general condition of the patients excellent. In these five patients it was considered safe and expedient to perform transurethral resection at the time of the preliminary cysto-urethroscopic examination, business urgency being the prompting factor.

The amount of tissue removed from these patients varied from four to twenty-seven grammes.

Post-operative drainage in all cases was by a number 22 or 24 French whistle-tipped rubber catheter.

One patient in this group died on the twelfth day after operation from a severe attack of *angina pectoris* or coronary occlusion.

Transsacral and caudal infiltration anaesthesia with 1% "Novocain" solution has been the routine method. This has given perfect and lasting anaesthesia, and in only one case has a small amount of ether been necessary before completion of operation, the infiltration anaesthesia failing early, probably owing to some of the sacral foramina being missed. In three cases, however, "Spinocain" anaesthesia was employed for no special reason except that caudal anaesthesia only, in the preliminary cystoscopy, had not been as satisfactory as usual. One of the patients who had "Spinocain" anaesthesia was the patient referred to previously and is the only one in the whole series who died.

This patient was a man of sixty-seven years of age, and the operation for moderate median and lateral lobe hypertrophy was very easily performed and with no bleeding, but just on completion of the operation he experienced a marked fall of blood pressure and a severe attack of precordial pain. He, however, recovered with the aid of ephedrine and extra warmth, but though the results of his renal function tests were very satisfactory before operation, he developed anuria for thirty-six hours. With the aid of diathermy and general treatment his kidneys then began to function, his general condition improved gradually, and he appeared to have recovered well, when, on the twelfth day after operation, he experienced another severe anginal attack and died within a few hours.

This patient had coronary sclerosis, which was unrecognized by us, and for which, of course, spinal anaesthesia is severely contraindicated. Insufficient inquiry and investigation on our part failed to reveal that he had suffered similar, though milder, attacks previously, and that he had been confined to bed for six weeks at his home, some two hundred miles from hospital, just a few months prior to operation. The only excuse that can be offered for failure to elicit this important history is that he was completely deaf and that it was very difficult to obtain information from him.

I have no hesitation in believing that, had this patient been properly handled, receiving the usual transsacral and caudal anaesthesia, and had his blood pressure been sufficiently checked during operation, he would have made an uneventful recovery.

This opinion is strengthened by our experience with two other patients in similar condition, one of which I wish to quote.

CASE XXXVII.—The patient was aged sixty-five years, a university professor, of very nervous temperament. He suffered from intense frequency of micturition, having to urinate six times at night. He had been confined to bed for several weeks, suffering from coronary sclerosis, verified by electrocardiographic investigation by a competent cardiologist. As his condition was becoming slowly aggravated, and as his renal function was depressed, it was suggested by his practitioner and by his cardiologist that relief from his prostatic obstruction, with its subsequent expected improvement in renal function, might reasonably be expected to allow better prospects of increased cardio-vascular efficiency. Investigation revealed residual urine to be 200 cubic centimetres (six and a half ounces), moderate median lobe (posterior commissural) hypertrophy, marked right lateral lobe and moderate left lateral lobe hypertrophy. There was no special elongation of the posterior urethra and he was given catheter drainage for four days. Transurethral resection was then performed, an amount of nine and a quarter grammes being removed under anaesthesia produced by transsacral and caudal infiltration. The blood pressure did not fall at all during operation, anaesthesia was excellent, and there was no shock whatever, the patient returning to his room in good condition. The catheter was removed after seventy-two hours, and he left hospital eight days after operation. He experienced moderate scalding on micturition for two weeks with mild frequency only, having to pass urine two to three times at night, and residual urine, which was rather turbid, was then 30 cubic centimetres (one ounce). Two months after operation residual urine was four cubic centimetres (one drachm); he had to pass urine only once at night, and his general, renal and cardio-vascular condition had improved out of all recognition.

The problem of the massive prostate is demonstrated in the following case report.

The patient, Case XI, aged seventy-seven years, and an advanced osteoarthritic, came from the North Island of New Zealand especially to have transurethral prostatic resection, as he had persistently refused to have prostatectomy performed in his own town. Cysto-urethroscopic investigation revealed residual urine to be 240 cubic centimetres (eight ounces), the median lobe to be markedly hypertrophied and projecting largely into the bladder. Both lateral lobes were very markedly enlarged and elongated, so that the prostatic urethra was between two and three times the normal length. The distance from the vesical neck to the verumontanum was 6.75 to 7.0 centimetres (two and a half to two and three-quarter inches), the normal being about 2.0 to 2.25 centimetres. The opening into a moderate sized diverticulum was seen close to the right ureteric orifice and there was a moderate degree of vesical infection therefrom. The patient was strongly advised to have surgical treatment for the diverticulum and to have subsequent suprapubic prostatectomy, but as he refused any type of open operation it was decided, perhaps unwisely, to perform transurethral resection. After seven days of catheter drainage, with antiseptic irrigations and medicaments, resection was performed, a total of twenty-seven grammes of tissue being removed. He was given a very good clearance of his median lobe and a partial clearance of his lateral lobes, but as this was an early case in the series and as the operation was rather slowly performed, the anaesthesia had worn off before a complete clearance could be given, some overhanging nodules being visible from both lateral lobes

near the roof of the urethra. The catheter was removed after five days and at first he passed urine easily, but after two days he began to notice that, although there was no great frequency and though no difficulty in commencing urination was present, the act became interrupted before completion, with an accompanying perineal pain. After a few seconds' delay urination could be completed, but more or less with a dribbling stream. He left hospital after three weeks, refusing to have any cysto-urethroscopic examination, as he stated he was satisfied to know that he could empty his bladder so much more easily than before operation, though his residual urine was 90 cubic centimetres (three ounces). Latest advice, a year after operation, shows that he still gets this painful interruption at times, but otherwise he is satisfied, as frequency is not troublesome, and usually he has to get up only twice at night.

I feel satisfied that the unremoved overhanging lobules in the lateral lobes have been the cause of this patient's discomfort. There seems no doubt but that the very large massive prostate of this type, with such marked elongation of the prostatic urethra, should be removed by prostatectomy if the patient's condition will permit it.

The next patient illustrates a serious error that must be avoided.

This patient, Case XVI, aged seventy-five years, had to pass urine five times by night. An apparently satisfactory resection was carried out, moderate median with moderate lateral lobe enlargement being present, and about ten grammes were removed. The post-operative course was normal when the catheter was removed in three days, after which he emptied his bladder well. On the fifth day he developed some pain, with apparent difficulty on urination, and in my mistaken enthusiasm, this being an early case in the series, it was decided to make a reexamination at once. Cystoscopy revealed incomplete removal of both lateral lobes and a nodule overhanging from the right lateral lobe. A vital error was then made in deciding to do an immediate secondary resection. This was done without difficulty, but when the catheter was again removed after two days the patient's troubles began. He developed intense pain, urgency and difficulty on urination, and was so intolerant to a catheter that further catheter drainage was impossible. The condition developed was apparently a prostatitis with interstitial cystitis, and though it is now ten months since operation he still has severe frequency. It is true he can pass urine fairly easily now, but it is accompanied by a gradual lessening perineal pain, and the frequency at night, which six months ago was eight to ten times, is now four times.

It is, of course, very unsound treatment to undertake a second resection before complete urethral convalescence has been obtained. Whether the ill effect is the result of the excessive dose of high frequency current or whether, as is more likely, it is the result of cutting through an unhealed and obviously infected area, or whether both factors play their respective parts, the fact remains that it is a dangerous procedure and should be strictly interdicted. McCarthy⁽¹⁾ says that to repeat the operation in two to three weeks is too soon, and advises that three to eight weeks should elapse.

Post-operative haemorrhage in two patients has been treated by suprapubic cystostomy, both of these cases being early in the series (Cases IV and VIII).

One patient, ninety-four years of age, had a moderate median plus lateral lobe enlargement which had caused complete retention and excessively depressed renal function. After three weeks of catheter drainage he

underwent resection without difficulty. His bladder drainage was pale pink in colour when he was returned to the ward, but, the catheter blocking after a few hours, free coagulation began to occur and his bladder became distended. Suprapubic cystostomy was performed without delay under local anaesthesia, the bladder was emptied of much blood clot, and the patient made an uninterrupted recovery. The suprapubic tube was removed in three days and the catheter five days after operation. His wound healed quickly and he left hospital after three weeks with a very good functional result.

At the present time, in almost every case, the patients are returned to bed with no macroscopic blood in the irrigation, and I have no doubt that now, instead of cystostomy, one could easily remove the catheter, evacuate the blood clots through the "Bakelite" sheath, and control the bleeding by focal coagulation with the punctate electrode (Figure IIc) or by catheter bag compression (Figure IIb).

In Case VIII the patient, aged eighty-nine years, underwent resection without difficulty, but was returned to bed with his urine rather blood-stained. Later in the day his catheter became blocked and his bladder distended. On the assumption that his bladder was filling with blood clot, a suprapubic cystostomy was performed under local anaesthesia. His bladder was filled mainly with irrigation fluid and contained a small clot no larger than a cherry, but his catheter was plugged with a tough tenacious clot which could be dislodged only with a probe. He made an uneventful recovery, the suprapubic tube being removed after two days and the catheter after four days. He left hospital with the wound healed and well ten days after operation with a splendid functional result.

Inexperience here led to unnecessary cystostomy, as all that was necessary was to remove the catheter, clear it and replace it, or possibly sodium citrate solution would have cleared it.

These cases, with complications, have been reported in some detail to point out the difficulties a beginner at this method of treatment may be called on to meet. The remaining cases, however, were all comparatively straightforward, and the patients have done well, exhibiting in all cases very good functional results, none of them requiring any further treatment. To illustrate an average straightforward case it is considered fair to report Case XXIII, as the patient also had the additional complication of a vesical calculus, and the method used to extract this calculus will be described.

The patient was a man of sixty-seven years, on whom I had performed a Moynihan II partial gastrectomy four years previously for gastric carcinoma. He exhibited on panendoscopic examination moderate median lobe with moderate right lateral and mild left lateral lobe hypertrophy and no special elongation of the prostatic urethra. A "date-stone" calculus was seen in the bladder. As the patient was in good condition, and as it was not convenient to spend much time in hospitalization, an immediate resection was done without any difficulty. An effort was then made to deliver the calculus through the "Bakelite" sheath, but although it could be engaged in the fenestrum by snaring with the loop, it was just too large to enter the sheath without fear of breaking the telescope. The sheath was removed and the number 28 French McCarthy panendoscope was introduced. The calculus was grasped at one end by a foreign body forceps, the telescope was removed, and the calculus was drawn by the forceps into the opening of the sheath. Although the stone almost completely entered the sheath, it could not be withdrawn through it, but was easily withdrawn

with the sheath. The calculus was the shape and size of a date stone and was a tight fit in the lumen of the number 28 French instrument. There was no bleeding and the catheter was removed after three days, the patient getting out of bed on the same day and leaving hospital seven days after operation. His result has been perfect, and whereas before operation he had severe frequency and difficulty, aggravated by the calculus probably, he now, seven months after operation, passes urine easily, at normal intervals, and does not get up at all at night.

The average period in hospital for these patients with hypertrophy was 14.9 days. The average post-operative stay was 10.3 days.

The average patient has the catheter removed two to four days after operation, and occasionally, if a large amount of tissue has been removed, after five days, and leaves hospital in seven days. The usual history is that urine is passed easily after the catheter is removed, though the majority of patients have some frequency with burning on urination, or a mild pain on the completion of the act, but this is not troublesome and passes off by the end of the second or during the third week. During this period the urine is liable to be somewhat turbid and it is customary to keep those patients on urinary antiseptics for a short period. The cause is probably a temporary post-operative oedema, which causes a temporary residual urine of mild dimensions. The latter subsides with the former and as a rule disappears by the end of the third week at any rate.

There have been no experiences with secondary haemorrhage in this series, and this is almost certainly explained by the fact that excessive coagulation has always been studiously avoided.

Epididymitis occurred definitely in one patient, though a second patient had a mild pyrexial attack. Vas ligation has not been performed as a routine measure, being carried out only in three patients.

Except that during the period covered by this series, five patients have been subjected to suprapubic prostatectomy by the Harris technique, because of the decision that the prostate in each case was too large and congested for resection; no patient has been refused operation, and several patients in this series were so bad in general condition and with such lowered renal function that prostatectomy could not under any circumstances have been considered as a logical procedure.

Conclusions.

1. A series of 47 cases of prostatic obstruction treated by transurethral resection is presented with one death, being a mortality rate of 2.13%.
2. It would appear that approximately 90% of all cases of prostatic obstruction can be satisfactorily treated by the method of resection.
3. It is admitted that the small series herein reported is not sufficiently comprehensive on which to base a final pronouncement, nor have most of the patients been treated sufficiently long ago to base a final opinion as to permanent results. It can be said, however, that relative permanency can be held proved by the figures of McCarthy, Bumpus, Davis and others, whose series take us back four to

seven years. McCarthy's⁽²⁾ mortality over many hundreds of cases is 0.8%. Bumpus,⁽³⁾ of the Mayo Clinic, states that in the last 600 cases of resection mortality has been 1.33%, and in the last 600 cases of prostatectomy mortality has been 9.5%.

4. Hospitalization is brief, representing a considerable economy to the patient.

5. The operation of resection can be safely accomplished only by those who, having special training in endoscopic procedures, are skilled *instrumenteurs* and who have a precise knowledge of the normal and pathological pictures of the posterior urethra and vesical neck. Even so, beginners at this method of endoscopic surgery should limit their early attempts to the easier types of bladder neck obstruction, such as median bar and mild median lobe hypertrophy.

Bibliography.

- ⁽¹⁾ Joseph F. McCarthy: "Progress in Prostatic Surgery", *The Pennsylvania Medical Journal*, August, 1933.
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Reviews.

A TEXT BOOK OF SURGERY.

THE continued popularity of "Rose and Carless' Manual of Surgery" is emphasized by the appearance of the fourteenth edition only three years after its predecessor.¹ The simultaneous appearance of an American edition and the fact of several Chinese translations prove that this work remains one of the important international text books.

The present edition forms a very bulky single volume of over 1,500 pages. The highly surfaced paper on which it is now printed forms a pleasant contrast to the dull surface of the earlier editions.

In many sections there is evidence that careful revision has been employed to bring the text into line with modern thought. The section on thoracic surgery may be instanced as an excellent example of this tendency, while modern radium therapy is adequately represented.

Abdominal surgery is adequately treated, although in the section devoted to the post-operative treatment of peritonitis the almost unanimous swing away from purgatives towards morphine has not been sufficiently emphasized.

The section on fractures illustrates the difficulties associated with the modernising of an old-established text. Although the preface claims that Böhler's methods of treating fractures have been described in detail, a careful scrutiny fails to reveal more than a passing mention of his name, while the general tenor of fracture treatment in this volume would certainly not be approved by Böhler himself. Operative methods of fracture treatment associated with the name of Arbuthnot Lane are still allotted considerable space, while the section devoted to fracture of the *os calcis* fails to mention Böhler's important contribution to its treatment.

The claims of the preface that the surgery of the sympathetic nervous system has been brought up to date likewise appears a rather optimistic statement to those who read other than British current surgical literature. Buerger's disease (*thromboangiitis obliterans*) is dismissed in two paragraphs without any discussion of its modern therapeutics.

Intestinal stasis is still given respectful attention, while the much more fruitful conception of right-sided viscerop-tonia is not accorded a mention.

It is pleasing to note that a useful section on the special surgery of tropical countries has been incorporated.

The fourteenth edition of "Rose and Carless" seems to us to illustrate both the advantages and disadvantages of a text book completely revised by one or two men.

The long-continued success of this work is sufficient evidence of the basic soundness of its teaching, but there appears an almost insuperable difficulty in the uniform modernization of a text that claims to cover the whole realm of surgery. Even the present distinguished revisers are presumably not equally interested in all phases of surgery, and much of the context of chapters in which real progress might have been recorded shows little alteration from the immediate post-war period. It must be conceded, however, that though a larger team of revisers might have produced a more completely modern text book, yet much of the uniformity and what might be called "personality" of the book would be thereby lost; and it is such that has built up the enduring success of this work.

A number of coloured plates have been incorporated. While these are of considerable technical excellence, the subjects portrayed might be legitimately criticized, representing, as most of them do, *post mortem* specimens of rare maladies. We may instance as such examples that the section on breast diseases is embellished by a full-page plate of a sarcoma of the breast, a condition which is happily now rarely seen; that on the thyroid gland by a carcinoma of the thyroid; while other plates represent a carcinoma of the œsophagus with a perforation through its wall, a myeloma of the tibia, and a diverticulum of the pharynx. In the section devoted to diseases of the blood vessels, where coloured illustration of the changes occurring with posture in certain disorders might have proved valuable, the illustration is one of spreading moist gangrene following thrombosis of the popliteal artery.

We congratulate Dr. Wakeley and Dr. Hunter and the publishers on the continued success of this great text book.

TOXÆMIA AS A FACTOR IN ASTHMA.

So much has been written about the rôle of hypersensitiveness in asthma that it is refreshing to see an attempt to view this disease from a different angle. In his book, "Some Thoughts on Asthma", Dr. A. J. D. Cameron briefly reviews the more commonly accepted theories of causation and emphasizes the weaknesses of each.¹ Instead of these theories he puts forward the view that intestinal "toxicosis", ethmoid disease, and an abnormally irritable nervous system are the real causes, and among the main methods of treatment he recommends diet, colonic lavage and treatment of the ethmoid disease by the antiseptic packs advocated by Dowling twenty-five years ago. His review of the significance of allergy is sketchy and unsympathetic and can hardly be taken as a fair presentation of the known facts.

Each new discovery relating to a disease tends to focus attention on one aspect, with corresponding neglect of less novel features. Specialists in asthma are not all guiltless in this respect, and some have been led almost to forget the patient when faced with the fascinating intricacies of allergy. We are still without an explanation as to why some individuals become hypersensitive, but there is no doubt that it is a prominent and important feature in about 50% of asthma patients, and its recognition frequently leads to disappearance of symptoms when all

¹ "Rose and Carless' Manual of Surgery for Students and Practitioners", by C. F. G. Wakeley, D.Sc., F.R.C.S., F.R.S., and J. B. Hunter, M.Chir., F.R.C.S., Fourteenth Edition, 1933. Royal 8vo., pp. 1495, with illustrations. Price: 25s. net.

² "Some Thoughts on Asthma", by A. J. D. Cameron, M.B., Ch.B., with foreword by K. Playfair, M.A., M.B., B.Ch., M.R.C.P., 1933. Bristol: John Wright and Sons, Limited. Crown 8vo., pp. 186. Price: 7s. 6d. net.

other methods of approach have failed. To ignore the allergic aspects of the disease and to concentrate exclusively on the alimentary and nasal features would surely seem as serious an error as concentrating exclusively on the allergic features. Dr. Cameron justifies this attitude by stating that it is quite usual for hypersensitiveness to disappear or to become unimportant when "detoxification" has been thoroughly established. This is a very interesting observation, and if confirmed by further experience would, of course, revolutionize our methods of treatment. But while knowledge of this subject is so incomplete, clinicians will probably use all weapons available and not pin their faith entirely to one dogma. The methods advocated are obviously useful in a large proportion of cases, but they are by no means new, and in many cases have not proved adequate when used by themselves. Brevity is, of course, essential in a book of this sort, but its value would have been greatly enhanced by an analysis of results and a discussion of the failures which must surely have occurred. But it can be commended for its sturdy insistence on abnormal alimentary function as an important factor in asthma, for its conservative attitude in nasal treatment, and for its reminder that asthma is a general disease.

THE KNEE JOINT AND ITS DERANGEMENTS.

In the second edition of "Internal Derangements of the Knee Joint" the author has succeeded in incorporating the recent advances in our knowledge of this complex piece of mechanism. He has also taken the opportunity of including the results of some of his own researches into the nutrition and repair of the intraarticular meniscus. The term "internal derangement" implies that it is often difficult to diagnose with accuracy the pathological condition existing in any given instance and the author, while accepting this, makes a very sincere effort to differentiate between the many conditions which may give rise to apparently similar symptoms. He enumerates various intraarticular and extraarticular lesions which may be responsible for this internal derangement and discusses them in detail.

Throughout the work it is patent that he firmly believes that there is a "time for rest and a time for movements, the danger lying in making a religion of either therapeutic measure", and that if the indications for movement are carefully followed there should be many more complete cures of otherwise hopeless knee joint conditions.

The discussion of the anatomy of the meniscus in the human being is preceded by a very interesting study of their comparative anatomy and development, and the author again raises points regarding the detailed anatomy of the meniscus, particularly with regard to their attachments to the collateral ligaments. He seems to be on firm ground when he questions the possibility of regeneration of the menisci after they have been torn or removed. Congenital abnormalities are in his experience almost always entirely confined to the lateral meniscus, which does not, however, enjoy its former immunity from injury. Lesions of the semilunar extensions of the intrapatellar fatty pads receive more attention and detailed treatment and are, in his opinion, responsible for some of the obscure derangements which have been cured by manipulation. The importance of maintaining tonus in the quadriceps muscle after any of these lesions is again impressed on the reader and illustrates the need for cooperation in after-treatment between the surgeon and the masseuse. His opinion will again find support when he emphasizes the importance of removal of the whole meniscus as the only sure guarantee against recurrence of

symptoms attributable to laceration of it. The value of early active movements after operation upon the knee joint receives the attention that its importance demands. The possibility of the formation of new bone in loose bodies lying in the joint is argued and attention is drawn to the possibility of these bodies after becoming free, again becoming attached to the synovial membrane. The fertile subject of the pathology of *osteocondritis dissecans*, although receiving attention, in our opinion, leaves one in mid air.

The author attempts to establish a new classification of arthritis, but appears to find it as difficult as previous authors to draw clear-cut lines of demarcation between the various groups. For instance, although he classifies osteoarthritis in his degenerative group, he writes: "to regard the progress as a pure degeneration is absurd", and again, "that the early heat, pains and effusion appear to point strongly to inflammatory rather than to the degenerative origin of osteoarthritis". Sprains of the knee joint and the principles underlying the breaking down of adhesions are very clearly described, and again the practitioner is advised not to err on the side of prolonged immobilization, but to remember that absorption is more rapid when the joint is moved than when it is immobilized. Some little confusion may arise from the fact that the author adheres to the old terminology in speaking of internal and external fibro-cartilages.

The illustrations are excellent, many being from original preparations, and the typescript is well arranged. We can recommend this publication with confidence to all who may be confronted with the diagnosis and treatment of these conditions.

IMMUNIZATION AGAINST DIPHTHERIA.

To the medical officer of health undertaking for the first time the organization of effective measures of diphtheria immunization, the strength of the opposition to his efforts comes as an unpleasant surprise and may, if he be not skilled in the art of controversy, seriously affect the success of his plans. In "Diphtheria Immunisation: Propaganda and Counter Propaganda" is told the story of the opposition to the measures advised by Dr. Wilson, the medical officer of health of the County Borough of Dewsbury, in Yorkshire, England.¹ Dewsbury has a population of some 54,000 and a child population of 12,236. During the years 1921-1930 the average annual number of cases of diphtheria reported was 34.6, but in 1931 there were 121, and in 1932 there were 189; at the same time the disease became more virulent in type, the case mortality rising from 8.4% to 15.3%. He accordingly advised the borough council to undertake immunization measures and encountered strenuous opposition from the Anti-Vaccination League and the London and Provincial Anti-Vivisection Society. He has succeeded, with the assistance of private practitioners, in having nearly 2,000 children immunized, but the battle is not yet over. The little book—it contains but 117 pages—is well worth reading by medical officers of health and others interested in the prevention of diphtheria. It contains reproductions of all posters and publicity matter used by both sides, letters and articles appearing in the local and neighbouring Press, reports of council meetings, correspondence with private individuals, and three appendices dealing with Dewsbury health statistics and with the methods adopted, the costs and the results achieved up to the date of publication (May, 1933). The various articles and letters contain between them all the main arguments for and against immunization, and the controversy is on the whole moderate and courteous in tone. The book is clearly printed and is well indexed.

¹ "Internal Derangements of the Knee-Joint: Their Pathology and Treatment by Modern Methods", by A. G. T. Fisher, M.B., Ch.B., F.R.C.S.; Second Edition; 1933. London: H. K. Lewis and Company, Limited. Demy 8vo., pp. 219, with 120 illustrations. Price: 15s. net.

¹ "Diphtheria Immunisation: Propaganda and Counter-Propaganda", compiled by J. G. Wilson, M.D., M.R.C.P., D.P.H., with preface by J. G. Forbes, M.D., F.R.C.P., D.P.H.; 1932. Dewsbury: Joseph Ward and Company. Demy 8vo., pp. 117. Price 2s. 6d. net.

The Medical Journal of Australia

SATURDAY, APRIL 14, 1934.

All articles submitted for publication in this journal should be typed with double or treble spacing. Carbon copies should not be sent. Authors are requested to avoid the use of abbreviations and not to underline either words or phrases.

References to articles and books should be carefully checked. In a reference the following information should be given without abbreviation: Initials of author, surname of author, full title of article, name of journal, volume, full date (month, day and year), number of the first page of the article. If a reference is made to an abstract of a paper, the name of the original journal, together with that of the journal in which the abstract has appeared, should be given with full date in each instance.

Authors who are not accustomed to preparing drawings or photographic prints for reproduction, are invited to seek the advice of the Editor.

A FEDERAL COUNCIL FOR POST-GRADUATE WORK.

POST-GRADUATE work in medicine is and always has been a necessity. Without it the medical practitioner suffers from mental atrophy, he looks at every illness in the light of the commoner complaints that affect the general run of patients, his eye loses its keenness and his hand its cunning. There is, of course, a time to study and a time to relax, just as there is, in the words of the Preacher, "a time to weep and a time to laugh"; there is also a way to study and a way not to study. To some men one method is easier than another. Every medical practitioner needs to read with care and regularity one or more medical journals; he also finds that intensive study of books on special subjects is necessary. Regular private study will keep the average man fairly well up to the mark, but not for very long; the mental pabulum provided by private study is rather like a diet deficient in certain accessory food factors. Some vitamins to the mental pabulum can be supplied only by word of an experienced teacher or by watching a deft clinician or a skilled laboratory investigator at work in his peculiar sphere. This is why medical

practitioners leave home to study under the supervision of recognized teachers; this is why medical congresses, conferences and post-graduate courses are held.

In Australia medical practitioners have many opportunities of coming into contact with their fellows in congress and conference; and in each State post-graduate courses are held at more or less regular intervals. Most of the readers of this journal know that the organization of post-graduate work in the Commonwealth began in Melbourne at the instance of the Victorian Branch of the British Medical Association. The Melbourne Permanent Post-Graduate Committee, an independent organization, being permanent and being composed of representatives of the University of Melbourne, of the teaching hospitals, of the Victorian Branch of the British Medical Association, and so on, is able to control its own funds and to carry out a set policy. We have always held that the scheme adopted by the Melbourne committee is the ideal scheme for Australian conditions; we also hold that seniority and good organization carry with them certain rights and privileges of leadership.

On previous occasions attention has been drawn in these pages to the lack of coordination in the arrangement of post-graduate courses in Australia. Attention is focused on the subject again by the fact that the courses to be held at Brisbane and Sydney this year will overlap. The desire of even one practitioner to attend the two courses at once makes obvious the lack of foresight in the arrangements. Coordination is needed in directions other than that of time. The subject of medicine is enormous and the field that can be covered in a course of study lasting a week is small. It would be to the advantage of everyone if the committees in each State, or at least in the more populous States, were to choose some aspect of medicine or some system of the body that would receive particular attention at each course. Were there no overlapping in time, practitioners could attend more than one course as the special aspects chosen attracted them. Again, when the question of inviting lecturers from overseas arises, there should be some means of pooling resources so that one

lecturer could visit each centre in turn. The coordination of post-graduate teaching in Australia can be carried out only by the foundation of a Federal Council for Post-Graduate Work. We have pleaded for the formation of such a body on previous occasions. Rumours have been heard that something was likely to be done, but as far as can be discovered nothing has happened, though opinions have been expressed in influential circles that a central council should be formed. The Melbourne Permanent Post-Graduate Committee has been named as having the rights and privileges of leadership; it should without further delay take the lead in the inauguration of a council that would coordinate the post-graduate courses and lectures in the several States.

Current Comment.

THE TREATMENT OF ACUTE APPENDICITIS.

IN another place in this issue is published an abstract from *The British Journal of Surgery* of an article by H. C. Wardleworth Nuttall, Honorary Surgeon to Out-Patients at the Liverpool Royal Infirmary. The title of Nuttall's article, "The Fallacy of Expectant Treatment in Acute Appendicitis", shows quite clearly what his views are. In the abstract of the article Nuttall's main arguments are stated. He claims, mainly by referring to tables published by McNeil Love, to show that expectant treatment is based on error. He can find no pathological evidence for a negative phase. The figures quoted by Nuttall from his own series of 551 are interesting. His series is too small to admit the drawing of general conclusions. His deaths number fourteen. To reduce this number to percentages is not really justifiable, but we find that the mortality of patients under nine years of age was 8%, of those between ten and nineteen years of age was 3%, of those between forty and forty-nine was 6.8%, and of those over fifty years of age was 6%. The two patients representing the 6% of deaths of those over fifty years of age were moribund on admission to hospital. That the mortality among Nuttall's patients was only 2.5% is to his credit, but it must be noted that in 240 of his cases the inflammation was limited to the appendix; in this group there were no deaths. In 208 cases local peritonitis was present; six patients died. In 15 cases diffuse peritonitis was present; five patients died. In 88 patients an abscess was found and three died. In 448 of the 551 cases the inflammatory condition found at operation was either limited to the appendix or accompanied by local peritonitis. When mortality after operation for appendicitis is

calculated the extent of the inflammation must always be considered, but even then the criteria of, for example, local and diffuse types of inflammation in different series may not be the same. In Nuttall's series the cases under the headings "Limited to Appendix" and "Local Peritonitis" were 80.2% of the series. In McNeil Love's series, with a mortality of 5.2%, the cases under these headings were only 65% of his series.

Unbiased readers who analyse Nuttall's figures will probably conclude that he has not proved his case. Whether this be so or not, Nuttall, at the commencement of his article states that delayed treatment is impracticable, except in fully staffed hospitals. As far as can be discovered, the protagonists of delayed treatment have not claimed that it should be used unless the patient was under continuous observation by trained attendants and unless immediate operation could be undertaken if it should become necessary. Readers are referred to a paper read by H. R. Pomroy before the South Australian Branch of the British Medical Association and published in this journal on December 30, 1933. The discussion that followed the reading of Pomroy's paper was most instructive. Pomroy showed clearly that delayed treatment in certain circumstances was justifiable and successful. Those who took part in the discussion showed that experience, caution and judgement were essential in any attempt at its adoption. Most surgeons, particularly those working under difficulties in the country, will get the best results if they follow the rule of operating as soon as a diagnosis of appendicitis is made.

THE TOXICOLOGY OF THE BARBITURATES.

THE number of barbituric acid (malonylurea) compounds introduced into therapeutics has become bewildering and confusion has been aggravated by the different names bestowed on identical compounds by manufacturers. Undoubtedly these drugs have proved of very great service as hypnotics or in conjunction with general anaesthetics and for other purposes. Professor J. A. Gunn has pertinently remarked that therapeutics would be better advanced by a wider knowledge of fewer hypnotics; but who is to decide which will be the chosen few? Some are supplied in combination with amidopyrine (pyramidon), phenacetin, ethyl morphine or codeine, to add an analgesic effect. This is not wise, as the proportion is fixed by the manufacturer and not left to the discretion of the prescriber. Fatalities have followed the use of the barbiturates, such as "Nembutal", phenobarbitone ("Gardenal" or "Luminal"), barbitone (veronal or hypnogen) and "Pernocton". Such fatalities may have been through accidental over-dosage, but, as concerns barbitone, have often been the result of deliberate self-destruction. Sir W. H. Willcox is of the express opinion that the taking of barbitone regularly for insomnia tends to create a suicidal impulse. This

dictum; however, is not universally accepted. A habit of addiction is not infrequent in connexion with barbitone, and cases of chronic poisoning are seen. The manifestations of this condition are: erythematous or other skin lesions, cyanosis, ataxia, blurred and indistinct speech, difficulty in writing, irritability and incoherence, lack of attention, dulled perception, loss of memory, emotional instability, delusions, restlessness and, in the absence of the drug, marked insomnia. Many people exhibit unexpected susceptibility and cutaneous eruptions are not uncommon after ordinary doses. These include erythema, which may resemble measles or scarlet fever, or a maculo-papular or urticarial rash may occur. Vesicles or bullae may form, leaving ulceration. Phenobarbitone seems especially prone to evoke such rashes. From 50% to 90% of the barbitone administered may be excreted by the kidneys; it is also found in the cerebro-spinal fluid; the rest seems to be oxidized in the tissues. Bachem has stated that after very large doses about 45% is destroyed without acting on the organism. "Dial" (diallyl-barbiturate) appears to undergo decomposition in the body, but the other compounds are excreted fairly rapidly in the urine. There is, however, cumulation of barbitone, and the effects are markedly cumulative. No tolerance is engendered. The average fatal dose of barbitone is about 3.3 grammes (50 grains), but varies between 1.0 and 11.0 grammes (15 and 165 grains). Even 0.6 gramme (ten grains) has resulted in death. On the other hand, recovery has followed in many cases after over 6.6 to 8.3 grammes (100 to 125 grains). One astounding case is on record of a drug addict, suffering from old mitral disease, recovering from 24 grammes (360 grains). Here coma lasted for five and a half days.

The barbiturates seem more prone to exert a toxic action when given in conjunction with morphine, both of which depress respiration. The manifestations of acute poisoning chiefly concern the cardiac and respiratory systems. The face and fingers may be flushed or cyanosed, the extremities cold. The pulse may be slowed or very rapid, blood pressure falls conspicuously, and dilatation of the heart may end in death. Generally respiration fails before circulation. Bronchitis, pneumonia (often of the lobular type) and pulmonary oedema are seen, and apneumotosis, with extensive collapse of the bases, has been seen after a "Pernocton" fatality. Temperature may be subnormal, or marked pyrexia may occur. Fatty degeneration of the liver may be disclosed at autopsy. There may be incontinence of urine or faeces. Degeneration of the convoluted tubules of the kidneys is seen, associated with oliguria or anuria or haematoporphyrinuria. The central nervous system displays profound interference. Sleep deepens into coma, which may persist for as many as ten days. The patient becomes ataxic, tendon reflexes are lost, and a Babinski phenomenon may appear. Animals with barbitone may display trembling and restlessness in sleep, or increased reflexes with convulsions. The pupils may

be dilated or contracted, with loss of corneal reflex, ptosis or diplopia.

The barbiturates should only be prescribed with caution, and especially if hepatic or renal disability exists or any condition of sepsis (particularly genito-renal) be present. Arteriosclerosis and hypertension in the elderly necessitate particular vigilance. Lung disease is a contraindication, but there are divergent opinions as to the advisability of administering barbiturates in conditions of thyrotoxicosis. Strychnine and the barbiturates (particularly "Amytal") seem to be mutually antagonistic, and each may be exhibited with benefit in poisoning by the other.

Sir J. Purves-Stewart and Sir W. H. Willcox¹ have recorded three cases of poisoning by barbiturates and urge the value of lumbar or cisternal puncture and drainage in such cases. This should be repeated at intervals of twelve or twenty-four hours. Thus the poison is removed from the brain, and they state that this method is the most appropriate for barbitone pneumonia. In addition, every means must be adopted to hasten elimination. The stomach must be washed out repeatedly and colonic lavage practised. Two of the cases reported were barbitone poisoning, both patients recovering. The third case was an amazing one; in this instance a woman of twenty-eight took veronal 8.3 grammes (125 grains), "Allonal" 8.3 grammes (125 grains), "Quadronox" 5.0 grammes (75 grains), and "Ipral" 10.0 grammes (150 grains), a total of 31.6 grammes (475 grains) of barbiturates (including some amidopyrine in the tablets). There were coma, stertor, a cold clammy skin, contracted, insensitive pupils, and a pulse of 180. The urine was pigmented from the amidopyrine constituent. The plantar reflex was extensor. The patient became cyanosed, with Cheyne-Stokes respiration. The knee jerks and ankle jerks were absent. Crepitations and dullness appeared at the lung bases. On several occasions the patient seemed moribund. Repeated cisternal and lumbar punctures were performed. Strychnine, atropine, caffeine and "Coramine" were given, a transitory opisthotonos being attributed to the strychnine. By the end of three and a half days coma had disappeared and the patient was alert and intelligent, with normal flexor plantar reflexes. Musculo-spiral paralysis (motor and sensory) developed, probably from pressure on the back of the chair in her comatose condition. There was also ulceration at the sites of urticarial vesicles on the limbs. Complete recovery ensued. The lumbar and cisternal punctures always resulted in improvement in the reflexes and general condition.

It is persistently evident that hypnotic drugs are becoming increasingly necessary in the turmoil of existence and that self-destruction is alarmingly prevalent. It behoves all medical practitioners to observe the greatest circumspection in prescribing hypnotic and sedative drugs. In Australia the control of the sale of such preparations by legislative enactment doubtless prevents many tragedies.

¹ *The Lancet*, January 6, 1934.

Abstracts from Current Medical Literature.

SURGERY.

Carcinoma Arising from Chronic Gastric Ulcer.

G. GOMORI (*Surgery, Gynecology and Obstetrics*, October, 1933) describes carcinoma arising from chronic gastric ulcer. In the more recent medical literature much attention has been directed toward the problem of gastric carcinoma arising from chronic peptic ulcer. Pathologists and surgeons are equally interested, as both the problem of aetiological relationship between chronic stimulus and tumour and the question of operative treatment of chronic gastric ulcer are involved. As a pathological change is subject to malignant degeneration, more radical treatment, of course, is required than for a lesion devoid of this menace. The theory that malignant degeneration of chronic peptic ulcer is possible cannot be denied. There is ample evidence that malignant tumours may start in the edge of a chronic ulcer, for example, kangri cancer, lupus cancer, carcinoma arising in pressure ulcers of the tongue et cetera. That long-continued stimuli may produce cancer of the stomach has been demonstrated by J. Fibiger. In cancers formed in a gastric ulcer such a stimulus may be represented by the niche where food particulars are constantly undergoing decomposition. The author does not wish to draw conclusions from statistics, as his material is relatively small, but he calls attention to the fact that cancer secondary to ulcer is not so rare as it is believed to be by many authors. In 64 cases of chronic peptic ulcer and 26 cases of carcinoma, six cancers were secondary to ulcer. This fact justifies the opinion now held by the vast majority of prominent surgeons that, whenever possible, chronic gastric ulcers must be resected. There are many discrepancies in the statistics as to the frequency of cancer developing on a peptic ulcer base. Such cancers can be definitely diagnosed only by microscopic examination. Diagnosis is based on signs characteristic of chronic peptic ulcer, and in addition there is found partial or complete freedom from cancer cells at the ulcer base and ulcer margin. It was at the Third Surgical Clinic of the University of Budapest that the 64 cases of chronic gastric ulcer and 26 cases of carcinoma previously mentioned occurred.

Carcinoma of the Male Breast.

JUDSON B. GILBERT (*Surgery, Gynecology and Obstetrics*, October, 1933) writes about carcinoma of the male breast. Male breast cancer comprised 1.24% of admissions to the breast clinic and only 0.14% of all cancers in males. The average age of the

patients in this group was 54.4 years. The left breast showed a slightly higher percentage of involvement than the right. Occupational mastitis due to chronic irritation is not infrequently a precancerous lesion; however, a previously existing benign tumour was noted in only three patients, or 6.3% of the series. The incidence of trauma as qualified in the text is recorded as a possible aetiological factor in 14, or 29% of the cases. No proved instance of a single trauma causing cancer was noted in this series. The coincidence of gynaecomastia with cancer is emphasized, and evidence of their relationship is considered on experimental clinical and anatomical grounds. Gynaecomastia occurred in nine patients, or 19% of this series. The symptomatology, pathology, and distribution of metastases correspond to the well recognized manifestations of mammary cancer in general. The prognosis of cancer of the male breast is poor. Five patients observed prior to January, 1928, survived five years. Three, or 11.5%, of these 26 patients are still alive without evidence of disease. Irradiation therapy is to be recommended as a valuable adjunct in the operable group and of great value as a palliative measure in the inoperable cases. Heavier dosage by irradiation methods is recommended.

The Fallacy of Expectant Treatment in Acute Appendicitis.

H. C. WARDLEWORTH NUTTALL (*The British Journal of Surgery*, January, 1934) tells of the fallacy of expectant treatment in acute appendicitis. The relative advantages of delayed and immediate operation in acute appendicitis have been so freely discussed during the past few years that the subject is becoming wearisome. In spite of this, it appears to be as far from a general agreement as ever. On the whole, recent text books favour the delayed operation. The question cannot remain unsettled. Whether the advocates of immediate operation are justified or not, it can be shown that expectant treatment is based on error and is impracticable, except in fully staffed hospitals. While all are agreed on immediate operation in the early or unperforated appendix, the real crux of the question is the advisability of operating on the patient seen after forty-eight hours, with or without a palpable mass. It is generally admitted that delayed operation is not suitable for children or the aged. The expectant treatment is mainly based on figures which appear to show that operation is particularly dangerous during the period from the third to the fifth day, inclusive, and it is suggested that the patient is then in a negative phase. It is shown that if these figures are corrected for age groups the great majority of the deaths in that period occur in children or the aged. There is no pathological evidence for a negative phase at all. It is claimed that the occurrence of complications is less, and the stay in

hospital considerably shorter with immediate operation. An outline of the expectant routine is given, exposing its serious disadvantages, illustrated in several instances by examples from accounts by advocates of the method. The principles of the immediate operation have been grossly misrepresented in some papers. A brief description of the writer's views is therefore given. This is followed by an analysis of 551 consecutive cases operated upon by the writer with a total mortality of 2.5%. A further series of totals is quoted from four recent papers in order to show that these results are not exceptional.

Eventual Results of Gastric Surgery.

ERNEST H. GAITHER (*The Journal of the American Medical Association*, September 23, 1933) discusses the differences of opinion existing regarding the optimum surgical procedure for peptic ulceration. German and Austrian literature is overwhelmingly in favour of resection, while most American writers favour short-circuiting operations. Moynihan has claimed that resection is followed by an immediate mortality of from 5% to 10%, whilst that of gastro-enterostomy is only 1%. The risk of the occurrence of a marginal ulcer after gastro-enterostomy is very small and does not warrant the increased mortality risk of resection. The proponents of subtotal gastrectomy believe complications less frequent after the more radical operation. The author believes the methods of "follow-up" in use heretofore to be liable to error, and hence personally traced and examined by the fluoroscope one hundred persons submitted to gastric operations. Of one hundred patients submitted to operations of varying extent, 95% were relieved of pain. Invariably the gastric acidity was greatly reduced by gastro-enterostomy. The post-operative findings were incredible to the author, for the size of the stomach was invariably reduced, its tone, shape and position became almost normal, whilst the peristaltic waves were remarkably diminished in frequency and amplitude. The author concludes that there is no ideal operation to suit every case, as the decision must depend on the skill and judgement of the surgeon. Catastrophic hæmorrhage and perforation are rare after gastro-enterostomy. Medical treatment is often unjustifiably too prolonged.

Adynamic Ileus.

ALTON OCHSNER and I. M. GAGE (*The American Journal of Surgery*, May, 1933) discuss adynamic ileus. Of the various types of ileus, the adynamic variety is the most difficult to recognize promptly and to treat successfully. Adynamic ileus, in contrast to mechanical obstruction of the bowel, has no mechanical hindrance to the passage of the fecal stream, but as a result of interference with the nerve supply to the gut or of changes in the gut wall itself, the normal intestinal

movement is inhibited. Objections to the terms "adynamic" or "paralytic" as applied to this type of ileus have been made by Mueller, and Alvarez and Hosoi, because they have shown that in animals with experimentally produced adynamic ileus there exists no paralysis of the gut musculature. Alvarez and Hosoi have demonstrated that in adynamic ileus there occurs a levelling of the intestinal gradients, and they suggest "flat-gradient" as an appropriate term. The causes of adynamic ileus are varied. They may be intraabdominal or extraabdominal. The most frequent cause of adynamic ileus is exposure to air and manipulation during laparotomy. Adynamic ileus occurs earlier post-operatively than mechanical ileus. It is characterized by the absence of colicky, intermittent pain. Plain Röntgenograms of the abdomen are of inestimable value in the diagnosis of all forms of ileus. The treatment of adynamic ileus varies according to the type. The prophylactic treatment consists of abandonment of pre-operative and post-operative catharsis and the avoidance of unnecessary trauma and peritoneal contamination during the performance of a laparotomy. Physiologic ileus, which occurs for varying periods of time following all laparotomies, is treated by withholding the oral administration of all substances until nausea has ceased, by the application of heat to the abdomen, and by the administration of morphine. Water balance should be reestablished. Severe adynamic ileus is treated by transduodenal decompression by means of indwelling nasal catheters and remineralization of the patient. Hypertonic salt solutions ("hypertonic" Ringer's and "hypertonic" Hartmann's solutions) injected intravenously stimulate the intestinal movement in adynamic ileus. In severe cases one or more enterostomies are frequently necessary in order to decompress the dilated intestine. A splanchnic block (splanchnic or spinal analgesia) is often efficacious. Drugs are of little or no value.

Wounds of the Heart.

ALBERT O. SINGLETON (*American Journal of Surgery*, June, 1933) reports two cases of wounds of the heart and reviews ten recent similar cases treated at the John Sealy Hospital, Texas. The author discusses the causes of deaths due to such wounds, and lists the causes as: (i) "Herz tamponade" or hæmo-pericardium, (ii) foreign bodies, (iii) hæmorrhage, (iv) infection, either of pleura or pericardium. The first of the author's patients was stabbed and died on the operating table before operation. The cause of death was "Herz tamponade". His second patient suffered penetration of the heart by pellets from a shot gun. Enlarged cardiac dullness was noted and the man was cyanosed, dyspnoic and had a rapid pulse. Aspiration of the pericardium was performed and 250 cubic

centimetres of blood-stained fluid were withdrawn. X ray examination showed that the shot was still present in the heart muscle. Aspiration of the pericardial sac has been done repeatedly for the relief of heart compression. One operation is recorded in detail, performed upon a young man whose interventricular branch of the left coronary artery had been severed by stabbing. A traction suture of silk was passed through the apex and three silk sutures were embedded in the heart muscle, closing the stab wound and occluding the injured vessels. Complete recovery followed. The author noted the absence of pain usually present in coronary occlusion. Local anaesthesia was employed and the chest was aspirated at the conclusion to diminish pulmonary collapse. In most instances foreign bodies do no harm and should not be removed.

Removal of Slender Foreign Bodies from the Stomach and Duodenum without Gastrostomy.

P. W. GREELEY (*The Journal of the American Medical Association*, July 8, 1933) describes two cases in which he removed foreign bodies from the stomachs of children without opening the viscus. In a boy, three years of age, an open safety pin had been impacted in the pylorus for three weeks. The abdomen was opened by a left paramedian incision, and the pin, the point of which could be palpated in the duodenum, was worked back into the stomach. A small stomach tube, into the eye of which a piece of gauze had previously been sewn, was then passed. The pin was fastened to the gauze and closed by palpation through the anterior stomach wall and gently withdrawn, the abdomen being then closed. A girl, two years of age, who had had a small hairpin impacted in the pylorus for a month, was relieved of it by "milking" the blunt end into the eye of a number 24 French catheter passed by the anaesthetist. No originality is claimed for the procedure, and cases described by other surgeons are quoted. In one instance, where a nail was lodged in the duodenum, a tube was passed and the duodenum distended with air blown into it. The nail was dislodged, partly, it is believed, by the dilatation of the duodenum, and passed by rectum four days later. Although no record has been found, the method should also be applicable to adults.

Œsophageal Diverticulum.

FRANK H. LAHEY (*The Journal of the American Medical Association*, September 23, 1933) reports his experiences of 45 patients operated on for pulsion diverticulum. All sacs tend to track downwards and to the left. The author utilizes an extensive left longitudinal incision. The sac is always deep to the inferior thyroid artery and has a relationship with the recurrent laryngeal nerve. He uses

a two-stage operation and lays stress on the need for high implantation of the dome of the sac; it should reach the level of the superior thyroid artery. The sac is extirpated ten or twelve days later by dissection of mucosa from submucosa, and the remainder of the sac is packed with gauze and allowed to granulate. Great care must be exercised in completely dissecting the neck of the sac or recurrence will take place. If perforation occurs mediastinitis may follow. Post-operative dilatation of the pharyngo-œsophageal junction should be carried out in all patients to prevent constriction at the site. With few exceptions cervical nerve block with "Procaine" hydrochloride was the anaesthetic used. There were no fatalities in the series.

Spinal Cord Tumours.

FRANCIS C. GRANT (*American Journal of Surgery*, January, 1934) has recorded some notes on a series of spinal cord tumours. Of 13 verified tumours, 11 were in the thoracic region, and of these six were intradural extramedullary fibroblastomata; a further four were intramedullary lesions, whilst one was an extramedullary fibrous mass as yet unclassified. The author draws attention to the high proportion of benign fibroblastic tumours in relation to the cord as compared with an existing preponderance of infiltrating tumours occurring in relationship with the brain itself. Segmental nerve pains were the initial symptoms in thirteen instances. Some of the patients had been treated for sciatica or gall-bladder disease. The author stresses the aggravation of this pain on muscular effort, and he attributes this increase to a surge of cerebro-spinal fluid down the neural canal following upon the rise of intracranial pressure. Only four patients had the so-called "girdle sensation". Fourteen patients had paræsthesia below the level of the tumour and this preceded any motor symptoms. The author attributes this to two factors: first, disordered sensation is more easily noticed by the patient than small interference with motor function, and secondly, only one tumour was situated anteriorly, the remaining 13 being either postero-lateral or posterior to the cord. The Brown-Séquard syndrome was uniformly present, as four patients showed a reversed syndrome. However, in ten of the thirteen cases in which pain was the initial symptom, the pain was unilateral and the lower limb on that same side was the first to show motor involvement. As weakness developed in one lower limb paræsthesia appeared in the other. Prognosis depends on the pathological nature of the tumour and its development at the time of removal. Nine patients in the series have made complete recoveries, while five have shown improvement. One patient died at operation and three, having malignant tumours, have died of metastases.

British Medical Association News.

SCIENTIFIC.

A MEETING OF THE VICTORIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION was held at the Alfred Hospital, Melbourne, on September 20, 1933. The meeting took the form of a series of demonstrations by the members of the honorary staff.

Hypersensitiveness Associated with Asthma and Hay Fever.

DR. CHARLES SUTHERLAND showed six patients illustrating different types of hypersensitiveness commonly associated with asthma and hay fever and discussed the results of treatment.

His first patient was a man of forty-seven years, who developed asthma during the last year of the war in France. Nasal treatment and vaccines given some years ago had had no effect. Tests revealed marked sensitiveness to linseed and certain grass pollens, and since desensitization twelve months ago he had been practically free of asthma.

The next patient was a girl of eighteen years who had had asthma for three years and who was always worse in the summer. She was found to be very sensitive to pollens and had been better since desensitization was commenced four months previously.

The third patient, a man of thirty-six years, had asthma for eight years and was found to be sensitive to house dust and to many grass pollens; he had been almost free of attacks since desensitization two years previously. A test meal showed marked hyperchlorhydria, and his general health had been much better since he was given alkalis.

The next patient was a boy of four years, who had had asthma for twelve months and was found to be sensitive to house dust only. Desensitization, commenced four months previously, had apparently caused disappearance of the symptoms.

Another patient, a woman of thirty-four years, was desensitized three years ago with linseed, house dust, and certain pollens, with only slight benefit. Treatment with a stock vaccine containing streptococci, commenced six months ago, had produced an immediate improvement.

The sixth case was demonstrated to show typical sensitiveness to many grass pollens. The patient suffered from hay fever only and treatment had not yet been commenced.

Traumatic Arthritis of the Shoulder.

DR. C. J. OFFICER BROWN showed a male patient, aged fifty-two years, who was injured by a block of wood falling on to his chest and shoulder. He was not laid up and the shoulder was treated by massage *et cetera* a few days after the injury occurred. X ray examination revealed no abnormality. Eight months after the injury the patient reported to the out-patient department and it was found on examination that the shoulder movements were much restricted and that the joints creaked on movement. Dr. Brown said that he proposed to treat the patient by manipulation and by fixing the arm in full extension to the head of the bed. He expected a full restoration of function.

Dr. Brown's second patient was a man, aged fifty-two years, who was also suffering from traumatic arthritis of the shoulder. This condition was the result of prolonged fixation of the arm following on a fracture of the clavicle. Several manipulations were undertaken and the patient was allowed to go home immediately, but no improvement resulted. Physical therapy was tried without improvement. The movements of the shoulder, elbow, wrist and fingers were all considerably restricted. Manipulation under a general anesthetic was undertaken and the arm was fixed in full extension to the top of the bed. This was followed by physical therapy and the patient was discharged from hospital on an aeroplane splint. At the

time of demonstration the movements of the shoulder and elbow were satisfactory, but the fingers were still very stiff.

Cervical Rib Associated with Arthritis of the Shoulder.

Dr. Brown's third patient was a woman, aged fifty-two years, who attended hospital first in May, 1932, seven days after having injured her right shoulder. The condition was diagnosed as a dislocation of the acromioclavicular joint and treatment with strapping was undertaken. Later on, diathermy was used with the application of a liniment. Pain and stiffness persisted, and a diagnosis of traumatic arthritis was made. Osteoarthritic changes were found in the joints of the shoulder girdle on X ray examination. Later on, manipulation under general anaesthesia was undertaken and the arm was fixed to the end of the bed with the shoulder in extreme abduction. Exercises and movement were given and the patient was discharged from hospital with the arm on an aeroplane splint. The movements of the shoulder were full and painless.

A few days after discharge the patient complained of some numbness in the fingers and later on of numbness on the inner side of the forearm and hand. Examination revealed a cervical rib on both sides of the neck. The right cervical rib was more obvious than the left, and pressure over it caused a sensation of "pins and needles" on the ulnar side of the hand and forearm. X ray examination confirmed the diagnosis. Operation was performed. The *scalenus anticus* was exposed and divided at its insertion into the first rib. The lower cord of the brachial plexus was then seen to be stretched forward round the end of the cervical rib, and as division of the *scalenus anticus* did not seem to relieve the tension, the rib was excised. Dr. Brown explained that the operation had been performed too recently to permit much improvement to be shown in the nervous signs, but he pointed out that the blood pressure in the right arm was now a little higher than in the left.

Fracture of the Carpal Scaphoid and Dislocation of the Semilunar Bone.

Dr. Brown also showed a man, aged twenty-six years, who injured his wrist four days before coming to hospital, on February 3, 1933. X ray examination revealed a fracture through the base of the ulnar styloid process, a fracture of the scaphoid, and a forward dislocation of the semilunar bone. Attempts to replace the semilunar bone by manipulation failed. An operation was therefore undertaken on February 9, 1933. When a dorsal incision was made the semilunar bone slipped back into position. The arm was fixed in a cock-up position on a plaster mould and fixation was maintained for twelve weeks. At the time of the meeting the patient had been working for four weeks.

Tuberculosis of the Elbow Joint.

Dr. Brown showed a man, aged thirty-one years, who was first seen on July 5, 1932, suffering from tuberculous disease of the elbow joint of four years' duration. On October 5, 1932, the right elbow joint was excised. The patient was discharged to his home on November 5, 1932. On February 21, 1933, the patient's condition was excellent. He had no pain, all the movements were satisfactory, and he was at work.

Depressed Fracture of the Malar Bone.

Dr. Brown's next patient was a man, aged twenty-eight years. The patient was admitted to hospital on September 15, 1933, with a history of having struck his right cheek on a ball in a motor car accident on the previous night.

On examination the following conditions were found:

1. Bruising and swelling under the right eye and over the cheek bone.
2. Anaesthesia over the area supplied by the right infra-orbital nerve.

3. Bone injury: (a) a step-down deformity of the lower orbital margin; (b) tenderness over the site of fracture of the zygomatic arch; (c) depression of the malar bone.

4. On X ray examination, fracture of the orbital margin with downward, inward and backward displacement of the malar bone.

Dr. Brown pointed out that the full syndrome as described by Dr. MacLure included in addition transient diplopia and hemorrhage into the nose and antrum; these were not obvious in this case.

Congenital Slipping Patella.

Dr. Brown's last patient was a girl, aged sixteen years, who reported in June, 1933, with a history that both knees gave out and that one or other would suddenly give way, that she fell and was afraid of being injured in the city traffic. On examination slight *genu valgum* was found. When the knees were flexed the patella on each side would slip to the outer side and cause sharp pain. On X ray examination no abnormality was discovered.

On July 11, 1933, operation on the left knee was undertaken. The tight expansion of the *vastus externus* on the outer side of the knee was divided so that the patella did not slip out on flexion of the joint. A strip of *fascia lata* was passed through drill holes in the patella and threaded into the inner side of the capsule and internal lateral ligament to hold the patella in place, as suggested by Gallie. Dr. Brown pointed out that it was too early to determine whether the result would be satisfactory.

Ear, Nose and Throat Conditions.

DR. ATHOL BLAUBAUM demonstrated cases illustrating the work of the Ear, Nose and Throat Department. Three patients with carcinoma of the tonsil were shown. They had been treated with radium, and the lesions at the time of the meeting had completely disappeared.

The various kinds of mastoid operations performed were illustrated by plasticine casts, and the final results were shown, a patient representing each class of operation. The types were the Schwartz, the Heath, the Jenkins, the epitympanic, and the radical mastoid operation. All patients had dry ears and good epithelization had occurred. With the exception of a patient on whom a radical mastoid operation was performed, all the patients had very good hearing.

X ray plates were shown from the bronchoscopic work of the clinic and included: (i) lipiodol in a normal lung; (ii) lipiodol in bronchiectasis; (iii) foreign bodies in the bronchus (a screw, teeth) with abscess of the lower lobe; (iv) lipiodol in a case of carcinoma of the upper lobe of the lung; (v) foreign body in the mediastinum with pneumothorax surrounding it, the foreign body having perforated the oesophagus.

In the last-mentioned case, after complete rest attained by gastroscopy, the patient's temperature having settled down, the foreign body was seen endoscopically through the rent and recovered; since then the patient had convalesced completely.

Gynecological Conditions.

The Gynecological Unit, under the direction of DR. ROBERT FOWLER, assisted by the Baker Institute, gave a demonstration of various clinical and laboratory features of ovarian tumours.

A collection of about thirty pathological specimens (lent by the University of Melbourne) illustrated most varieties of ovarian neoplasm. In addition, the museum contained an exhibit of books and instruments of historic interest, and models of modern suction apparatus for aspirating ovarian cysts were demonstrated by Dr. A. OLDHAM.

Dr. J. M. BUCHANAN demonstrated four cases of pelvic-abdominal tumour, illustrating points in the differential diagnosis and treatment of ovarian tumours.

Dr. A. HYAMS (Baker Institute) exhibited specimens and demonstrated the technique of Freidman's modification of the Zondek-Ashheim test for pregnancy.

Dr. A. F. DOUTCH demonstrated the methods used in the Baker Institute for extracting and concentrating from human urine the ovarian hormone, folliculin. He described the method of biological assay and showed how the Baker Institute ovarian hormone preparation was made.

Dr. H. G. FURNELL discussed the therapeutic use of folliculin and similar products in the gynecological endocrine clinic.

Dr. V. BRENTON demonstrated post-operative cases showing how, with the use of aspiration, large ovarian cysts could be removed through very small abdominal incisions or even through the vagina.

Retinal Detachment.

Dr. J. RINGLAND ANDERSON, Dr. T. A. B. TRAVERS, and Dr. W. A. BOX demonstrated several cases of retinal detachment. The patients had been treated either by the electro-cautery or by diathermy. Several patients had been cured for over a year. The appearance of the fundus could be contrasted with that of a patient who had been operated upon only fourteen days previously. A patient was also shown with a large retinal detachment in which could be seen several areas of degeneration and a large retinal hole. (This patient has since been treated with diathermy with a good result.)

Another patient was shown in whom a shallow retinal detachment was discovered in routine examination. This detachment was symptomless and no constriction of the visual fields was demonstrable.

Proliferation of Blood Vessels into the Vitreous.

A case of proliferation of blood vessels into the vitreous was shown by Dr. Anderson, Dr. Travers and Dr. Box. The patient was a young woman who had complained of loss of vision in the right eye. This was found to be due to a hemorrhage into the vitreous, and when the hemorrhage had cleared away a large number of new blood vessels was seen growing into the vitreous from the optic disk and from other areas. A similar but very much less advanced condition was present in the left eye.

The patient had had several recurrent hemorrhages into the right eye and the blood vessels became more prolific. A course of radiation was given to the right eye with great improvement. The blood vessels were much smaller in size and there had been no further hemorrhages.

A young man with recurrent vitreous hemorrhages of unknown origin was also shown. His blood examination revealed no abnormality.

Heterochromic Cyclitis.

Dr. Anderson, Dr. Travers and Dr. Box also showed a patient with heterochromic cyclitis which had progressed for many months with little improvement.

Dr. E. C. PARNELL suggested a course of vitamin treatment, preferably by "Radiostoleum".

Paralytic Squint.

Dr. Anderson, Dr. Travers and Dr. Box showed three patients suffering from paralytic squint which had become concomitant. Two of the patients had had head injuries and the squint had developed upwards. The third patient had had an attack of *encephalitis lethargica*, and the squint, at first paralytic, had gradually become concomitant.

This last patient and one of those with the head injury had been operated upon with a good result, accurate stereoscopic vision with straight eyes being obtained. The third patient was under treatment.

Tuberculosis of the Sternum and Breast.

Dr. FAY MACLURE showed a woman who was suffering from tuberculosis of the sternum and breast. For four years the patient had had a swelling of the inner end of the right clavicle. This was incised, a sinus was left, and the swelling recurred. The sinus led down to the first costal cartilage and the sternum. Diseased bone was removed and the sinus healed. Four recurrent cold abscesses were present in the breast.

Thyreotoxicosis.

DR. WALTER SUMMONS showed two patients who were suffering from thyreotoxicosis.

The first was a woman, aged seventy-seven years. She was nervy and emaciated and had had exophthalmos for the last two years. On examination on March 23, 1933, the thyroid was small and nodular and there was some retro-sternal dulness. The basal metabolic rate was +21%. The Wassermann test gave no reaction. The cardiac rate was between 92 and 120; the apex beat was in the sixth intercostal space, ten centimetres (four inches) from the mid-line, and there was a systolic bruit heard at the apex. The systolic blood pressure was 210 and the diastolic pressure 100 millimetres of mercury. The weight three years ago was 59 kilograms (nine stone five pounds) and now 39.6 kilograms (six stone four pounds).

It was decided not to operate, and the patient was treated with rest and Lugol's solution with some improvement.

On June 15, 1933, a course of six weekly X ray treatments of ten minutes each was completed with definite improvement. The weight was now 45 kilograms (seven stone two pounds) and the pulse rate ranged between 86 and 96 per minute. She now complained of pain in the lumbar region, and on July 6, 1933, X ray examination of the lumbar region of the spine revealed that the vertebral bodies were markedly decalcified, with great narrowing of the bodies, and that the disks were markedly widened. These changes are consistent with parathyroid dysfunction. The abdominal aorta was calcified, and there were also found old calcified areas of healed tuberculosis in the apices of both lungs.

The second patient was a woman, aged thirty-five years, who had attended the out-patient department three years previously with swelling of the thyroid gland that had been present for three years; the thyroid was always the same size. The cardiac rate was 92 and the heart was not enlarged, regular, but a systolic bruit was heard in all areas. There was an enlarged palpable spleen and achlorhydria. The blood examination revealed the following information:

| | |
|------------------------------------------|-----------|
| Red blood cells, per cubic millimetre .. | 3,270,000 |
| Hemoglobin value | 60% |
| Colour index | 0.85 |
| White blood cells, per cubic millimetre | 6,200 |

The film showed marked macrocytosis.

The condition was regarded as one of pernicious anemia and responded well to liver treatment. On January 9, 1932, a full-time child was born, the confinement being normal. There are three prior children, aged eleven, eight, and two years.

In January, 1933, the patient again attended the out-patient department, gravely anemic. She had had liver treatment only spasmodically. She again responded well to liver, and in March the blood film was reported normal. On June 12, 1933, however, she reported with a pulse rate of 102, sweating readily, tremulous, and felt the heat at night; she had a von Graefe sign. The thyroid enlargement had not varied in size. She was placed on Lugol's solution, but no improvement resulted, and the tachycardia was more definite. On July 17, 1933, under gas and oxygen anaesthesia, Dr. Hembrow removed both lobes with a satisfactory result. At the time of the meeting the blood film was normal and the pulse rate 76 per minute.

Dislocated Cervical Spine.

DR. JOHN KENNEDY showed a male patient, aged twenty-four years, who sustained a fracture dislocation of the second cervical vertebra as a result of an accident that occurred on December 13, 1932. The patient was unconscious after the accident for a period of about twenty minutes. X ray examination showed that the fracture passed through both pedicles of the body of the vertebra and that the atlas was displaced forwards. On clinical examination tenderness was revealed in the upper part of the neck, on both sides and at the back. Slight deformity of the upper part of the neck was present; there was no bruising. The cranial nerves were normal,

sensation was normal, there was no paralysis, and the reflexes were normal. The heart, lungs and abdomen were normal. Treatment consisted in the use of sandbags. Extension on a double Thomas splint was applied on December 15, 1932. A plaster bed was used, together with a Taylor-Bruce head extension apparatus. The patient recovered.

Dr. Kennedy's second patient was a man, aged fifty years, who was admitted to hospital after an accident that occurred on January 1, 1933. The patient was conscious. He had complete paraplegia. The presence of anaesthesia was doubtful. The patient suffered from shock. He also had an injury of the chest and some fractured ribs. A diagnosis of fracture of the neck was made. The cranial nerves were intact. The biceps, triceps, knee and ankle jerks were absent, and the plantar reflex was extensor on both sides. Sensation in the right arm appeared to be normal. In the left arm anaesthesia extended up to just below the clavicle. X ray examination revealed an anterior displacement of the third and fourth cervical vertebrae. No fracture was seen. The head of the bed was raised, the patient's head was extended, and strapping was applied with a pulley and weight. A double Thomas splint was used. On January 6, 1933, X ray examination revealed complete reduction of the dislocation. The patient made a complete recovery.

NOMINATIONS AND ELECTIONS.

THE undermentioned have been nominated for election as members of the New South Wales Branch of the British Medical Association:

Palmer, Edward Charles, M.B., B.S., 1932 (Univ. Sydney), Royal Hospital for Women, Paddington.
Shaw, Francis William Rutherford Seymour, M.B., 1932 (Univ. Sydney), Tibbooburra.

THE undermentioned have been elected members of the Victorian Branch of the British Medical Association:

Meehan, John Francis, M.B., B.S., 1929 (Univ. Melbourne), 47, Davis Avenue, South Yarra.
Whitaker, Henry, M.B., B.S., 1929 (Univ. Melbourne), Rutherglen.
Shiels, Douglas Oswald, D.Sc., Ph.D., A.I.C., M.B., B.S., 1933 (Univ. Melbourne), 178, George Street, East Melbourne.
Johnson, John Gavin, M.B., B.S., 1931 (Univ. Melbourne), Base Hospital, Bendigo.
McGregor, Alexander Hugh, M.B., B.S., 1933 (Univ. Melbourne), Geelong Hospital, Geelong.
Frater, Alexander Smaill, M.B., B.S., 1933 (Univ. Melbourne), Base Hospital, Warrnambool.

Post-Graduate Work.¹**ANNUAL REFRESHER COURSE IN SYDNEY.**

THE NEW SOUTH WALES PERMANENT POST-GRADUATE COMMITTEE announces the following syllabus for the annual refresher course that will be held at Sydney from May 21 to June 1, 1934:

Monday, May 21, 1934.

British Medical Association House, 135, Macquarie Street, Sydney.

9 to 10.30 a.m.: Registration (Robert H. Todd Assembly Hall).

10.30 a.m.: Address, Chairman of the Post-Graduate Committee.

¹The attention of readers is directed to a notice, regarding the annual course at Adelaide, that appears on page 514.

10.45 a.m.: Morning tea.

11 a.m. to 12 noon: "The Relation of Medical Practitioners to the State Procedure in Cases of Sudden Death, Abortion, Gunshot Wounds, Suspected Poisoning, and Accidental Death", Dr. Arthur Palmer, Government Medical Officer for Sydney.

12 to 12.30 p.m.: "The New Pharmacopœia: Alterations and Additions", Dr. John MacPherson.

Sydney Hospital.

2.15 p.m.: The performance of autopsies and demonstration of pathological specimens, Dr. Keith Inglis.

3 p.m.: Management of Fractures, by members of the Surgical Staff.

Tuesday, May 22, 1934.

The Royal Alexandra Hospital for Children.

9 to 10 a.m.: Tonsils and adenoids: operative removal in children (three theatres).

10 to 10.45 a.m.: "The Treatment of Burns and Scalds in Children, with Demonstration of Methods and Results", Dr. J. Steigrad.

Morning tea.
11 to 11.30 a.m.: "The Management of Cases of Diphtheria", Dr. Lindsay Dey.

11.30 a.m. to 12 noon: "The Management of Acute Rheumatism in Children", Dr. M. J. Plomley.

12 to 12.30 p.m.: "The Management of Pyelitis in Children", Dr. R. J. Taylor.

12.30 to 1 p.m.: Demonstration of the working of the diet kitchen, Dr. Edgar Stephen.
A buffet luncheon will be served.

2 to 2.45 p.m.: "Osteomyelitis", Dr. P. L. Hipsley.

2.45 to 3.30 p.m.: "Fractures of the Arm in Children", Dr. T. Y. Nelson.

3.30 to 4 p.m.: "The Cutaneous Lesions of Syphilis in Children", Dr. A. P. F. Chapman.

4 to 4.30 p.m.: "The Common Skin Disorders of Children", Dr. G. Norrie.

8.15 p.m.: Lecture, Professor F. Wood-Jones: "A Study of the Vertebral Column", Robert H. Todd Assembly Hall.

Wednesday, May 23, 1934.

Royal North Shore Hospital of Sydney, St. Leonards.

9.15 to 10 a.m.: "Common Eye Diseases: Diagnosis and Treatment", Dr. E. C. Temple Smith.

10 to 10.45 a.m.: "The Treatment of Pott's Fracture", Dr. S. H. Scougall.
Morning tea.

11 to 11.45 a.m.: "The Treatment of Diabetes", Dr. W. Wilson Ingram.

11.45 a.m. to 12.30 p.m.: "Fothergill's Operation for Pro-lapse of the Uterus", Dr. H. Z. Throsby.
Lunch will be provided at the hospital.

2 to 3 p.m.: "Anæsthesia by Sodium 'Evipan' (Cysto-scopes)", Dr. R. J. Silvertown.

3 p.m.: Clinic for Pulmonary Diseases: Demonstration of cases, Dr. Cotter Harvey and Dr. A. J. Hood Stobo.

Thursday, May 24, 1934.

The Royal Hospital for Women.

9.30 to 10 a.m.: "Prenatal Examination and Management", Professor Windeyer.

10 to 10.30 a.m.: "Repair of Injuries to the Perineum and Vaginal Vault", Dr. Cedric Bowker.

10.30 to 11 a.m.: "Toxæmias of Pregnancy", Dr. Constance D'Arcy.

11 to 11.15 a.m.: Morning tea.

11.15 to 11.45 a.m.: "Puerperal Sepsis", Dr. H. Ridler.

11.45 a.m. to 12.15 p.m.: "Management of Abortions", Dr. Brown Craig.

2.30 p.m.: "Tresillian Mothercraft Training School", Dr. Margaret Harper.

8.15 p.m.: Lecture, Professor F. Wood-Jones: "A Study of the Vertebral Column", Robert H. Todd Assembly Hall.

Friday, May 25, 1934.

The Coast Hospital.

(Special transport will be arranged.)

9.30 to 10 a.m.: "Chronic Nephritis", Dr. C. B. Blackburn.

10 to 10.30 a.m.: "Intussusception", Dr. R. B. Wade.

10.30 to 11 a.m.: "Surgical Accidents and Their Avoidance", Dr. J. Colvin Storey.
Morning tea.

11.15 a.m.: "The Management of Infectious Diseases", Dr. H. V. D. Baret.

Sydney Hospital.

2.30 to 3 p.m.: "Blood Transfusion" (with cinema film), Dr. E. H. Stokes.

3 to 3.30 p.m.: "Intravenous Pyelography", Dr. R. Bridge.

4 p.m.: Dr. A. W. Holmes à Court.

Monday, May 28, 1934.

Lewisham Hospital.

9.30 a.m.: "Retention of Urine and the Use of Catheters", Dr. S. Harry Harris.

10 a.m.: "Use of Plaster in the Treatment of Fractures", Dr. N. D. Royle.

10.30 a.m.: "Gynecological Methods", Dr. W. F. Burfitt.
Morning tea.

11.30 a.m.: "The Various Forms of Anæmia and Their Treatment", Dr. Wilfred Evans.

12.45 p.m.: Light luncheon for members of the course as the guests of the Hospital.

2 p.m.: Clinical demonstrations in the Out-Patient Department:

Common skin lesions, Dr. J. Witton Flynn.

Common external eye conditions, Dr. E. A. Brearley, Dr. James Flynn.

Types of arthritis and physio-therapy treatment, Dr. J. Hoets and Dr. R. W. Graham.

Surgical cases.

Medical cases.

Tuesday, May 29, 1934.

Royal Prince Alfred Hospital.

9.15 a.m.: Symposium on headache, by Dr. Alan Walker, Physician; Dr. R. Godsall, Rhinologist; Dr. E. A. Brearley, Ophthalmologist.

10.30 to 11.15 a.m.: "Coronary Disease", Dr. S. A. Smith.

11.30 a.m.: Pathological demonstration and demonstration of tests suitable for general practice, Dr. A. H. Tebbutt and Dr. F. S. Hansman.

2 p.m.: Radium Clinic. Application of radium in practice; demonstration of cases treated by radium, Dr. Eric Fisher.

3 p.m.: Demonstration of skin cases, Dr. E. H. Molesworth and members of the Honorary Dermatological Staff.

Wednesday, May 30, 1934.

Saint Vincent's Hospital.

9.15 to 10 a.m.: "The After-Treatment of Laparotomy", Dr. V. M. Coppleston.

10 to 10.45 a.m.: "Breast Tumours", Sir John McKelvey.
Morning tea.

11 a.m. to 12 noon: "Peripheral Nerve Injuries", Dr. D. J. Gillman.

12 to 12.30 p.m.: "The Treatment of Hemorrhoids and Anal Fissure by Injection", Dr. E. MacMahon.

2 to 3 p.m.: "The Differential Diagnosis of Uterine Hemorrhage Apart from Pregnancy", Dr. F. A. Maguire.

3 p.m.: Dr. W. Maxwell.

Dr. B. P. Anderson Stuart or Dr. W. Perry *et cetera*.

Thursday, May 31, 1934.

Sydney Hospital.

9.15 to 9.45 a.m.: "Acute Rheumatism", Dr. L. Dunlop.

9.45 to 10.45 a.m.: "Treatment of Peptic Ulcer", Dr. Harold Ritchie.

Morning tea.

11 to 11.45 a.m.: "Casualty Surgery", Dr. A. Aspinall.
 11.45 a.m. to 12.30 p.m.: "Cervical Erosions", Dr. R. I. Furber.
 2.15 p.m.: "Hernia" (with cinema film), Dr. G. Bell.
 4 p.m.: Gynaecological cases for examination, Gynaecological Staff.

Friday, June 1, 1934.

The Women's Hospital, Crown Street.

9.30 to 10 a.m.: "Modern Advances in Obstetrics", Dr. H. Donovan.
 10 to 10.50 a.m.: "Diagnostic and Prognostic Difficulties in Obstetrics", Dr. A. J. Gibson.
 Morning tea.
 11.10 to 11.40 a.m.: "Cases Illustrating Obstetrical Problems", Dr. R. Bowman.
 11.40 a.m.: "The Medical Aspects of Pregnancy from the Obstetric Aspect", Dr. T. Dixon Hughes.
 Afternoon: Obstetrics, practical work. Twenty cases illustrating abdominal palpation.

CLASSES OF INSTRUCTION IN MELBOURNE.

THE Melbourne Permanent Post-Graduate Committee announces that classes of instruction will be conducted at the University of Melbourne for candidates for Part I of the examination for the degree of Doctor of Medicine and for Part I of the examination for the degree of Master of Surgery. The classes will commence early in May, provided at least six candidates are prepared to join each class. The fee will be twenty guineas. Those who intend to join are asked to communicate as soon as possible with the Honorary Secretary of the Melbourne Permanent Post-Graduate Committee at 61, Collins Street, Melbourne, C.I.

Correspondence.

TUBERCULIN.

SIR: Dr. W. Bruce Fry is to be congratulated on the stand he has taken in regard to the Koch treatment of tuberculosis.

I have been interested in this form of treatment for many years and have had a great deal of prejudice to fight—most of this condemnation has been entirely without trial. During the war, of course, one had to encounter a certain amount of prejudice owing to its German origin.

The chief trouble with the Koch treatment is the difficulty of getting individual people to give it a fair trial and to follow strictly all the requirements to insure good results. The rule-of-thumb method practised by many has been one of the reasons of many failures. Every case has to be carefully examined and the correct type of vaccine obtained, and in the later cases the correct emulsion is most important.

Twenty-five years ago I brought to Australia from the laboratory of Sir Almroth Wright the first samples of tuberculin that was being used in London, and I must say that, looking back over the years, many of the results have been simply astounding. I would suggest to unbelievers to inspect the hand book of Dr. W. Camac Wilkinson and I am sure they will be very interested in his findings.

In finalising, let me say that the early diagnosis of tuberculosis is a most important chapter in the problem. Like most other diseases, tuberculosis may be easily arrested in the early stage by proper methods. One must be sure of their diagnosis early and, as Dr. W. Camac Wilkinson says, there is no room for "happy guessing".

Yours, etc.,

T. & G. Buildings, Elizabeth Street,
 Sydney,
 March 26, 1934.

A. REGINALD McLEOD.

Analytical Department.

"ELEDON."

"ELEDON" is described by its manufacturers as "a modern acid butter-milk diet in powder form". In using the term butter-milk the manufacturers state that it was originally understood to designate the residue resulting from the churning of cream in the manufacture of butter, but that the term is now also applied to partly-skimmed or wholly skimmed fresh milk which has undergone a natural acid fermentation. It is in the latter sense that they use it. The claim is made that "Eledon" has definite advantages over ordinary butter-milk.

In the process of manufacture the fat content of milk is reduced by approximately 50% and the milk is then inoculated with a pure culture of a selected strain of lactic acid-forming organism. When the desired degree of acidity is reached the milk is reduced to powder form by a special process. The composition of "Eledon", when dry, is claimed by the manufacturers to be as follows:

| | |
|-------------|-------|
| Fat | 14.0% |
| Protein | 29.5% |
| Lactose | 40.0% |
| Ash | 6.5% |
| Lactic acid | 6.0% |

A sample of "Eledon" was submitted to our analysts, who report the following results:

| | |
|-------------|--------|
| Fat | 13.60% |
| Protein | 30.20% |
| Lactose | 41.50% |
| Ash | 6.50% |
| Lactic acid | 6.60% |

Comparison of the figures shows that the material examined agrees very closely in composition with the standard claimed by the manufacturers. It may be concluded that "Eledon" will be useful in conditions, particularly of intestinal origin, in which an acid milk diet with a low fat content is required. "Eledon" is manufactured by Nestlé and Anglo-Swiss Condensed Milk Company (Australasia), Limited.

Obituary.

THOMAS LANE BANCROFT.

THOMAS LANE BANCROFT, son of Joseph and Anne Bancroft, was born at Nottingham on January 2, 1860. In 1864 his father relinquished his practice in that town and, obtaining the position of ship's surgeon on the steamer *Lady Young*, brought his wife and young family to Brisbane.

Thomas Lane Bancroft was educated at the Normal School and the Brisbane Boys' Grammar School. In 1878 he entered the Edinburgh University, and five years later graduated as Bachelor of Medicine and Master of Surgery. He won the bronze medal for botany, a subject in which he always retained a deep interest. After spending a year at the Manchester Infirmary, gaining experience particularly in ophthalmic work, he returned to Brisbane. He was appointed to the Brisbane General Hospital and later held appointments at Geraldton (now Innisfail), Dalby, and at the Christchurch Hospital, New Zealand.

In 1889 he returned to Brisbane and commenced practice in Maxwell Place, Wickham Terrace. During the following years he was an active member of the Royal Society of Queensland and published several papers. He was interested in many public health matters. In particular he urged for legislation to prevent the sale of tuberculous cattle and worked hard to obtain more humane treatment of lepers. He published many papers dealing with the pharmacology of Australian plants, a subject in which his interest had doubtless been aroused when, as a boy, he had assisted his father in his *Duboisia* experiments. By 1889 he had already experimented with about 150 extracts.

Among other activities, he found time to study the blood parasites of birds and mammals, and in 1889 he demonstrated the occurrence of the then little known *Trypanosoma lewisi* in the blood of rats in Brisbane. He was also keenly interested in diseases of stock and was asked by the Queensland Government to visit Birdsville and report on an outbreak of disease among horses. In 1891, Dr. (later Sir) Edward Stirling advised the Queensland Government to send Bancroft to the Northern Territory to investigate a disease occurring in cattle. The appointment was actually made, but was cancelled at the last minute for political reasons. This disease was red-water fever, which has now spread throughout Queensland to the permanent detriment of the cattle industry.

In 1895 Bancroft married Cecilia Mary, daughter of the Reverend Thomas Jones, and went to live at Deception Bay, where he supervised the manufacture of pemmican by a process invented by his father. Pemmican—a dried meat powder—was at that time a standard part of the British Army emergency rations. His important researches into the life history of *Filaria bancrofti* were carried out during the next few years. He proved that *Culex fatigans* is a carrier of human filariasis, and figured all stages of development in the mosquito. He made the suggestion that the transference of the larval forms to man might occur when the mosquito was biting, and not by drinking infected water, as Manson had supposed. Indeed, the conception that mosquitoes might live several weeks and bite many times was a new one, and the discovery of this now universally accepted fact was a stepping stone to all future work on mosquito-borne diseases. In 1901 and 1903 he published papers dealing with the life history of *Filaria immitis* of the dog and described its development in the Malpighian tubes of *Culex fatigans*. He showed that the time elapsing between the infection of a dog by filarated mosquitoes and the appearance of microfilaria in the blood stream was about nine months.

In 1904 the British Army did not renew their order for pemmican, the works were closed down, and the Bancroft family went to live at Alderly. During the 1905 epidemic of dengue fever Bancroft collected strong epidemiological evidence that *Aedes argenteus* (better known as *Stegomyia fasciata*) was the carrier of dengue fever, and not *Culex fatigans*, as other workers had supposed. He attempted experimental transmission by means of *Aedes argenteus*, but unfortunately all his subjects contracted dengue before the experiments could be commenced. In 1906 he was

appointed temporarily to the staff of the Queensland Health Department and did some work on beri-beri. He drew up a check list with descriptions of all the species of mosquitoes then known in Queensland. This was published by the Queensland Museum in 1908. From 1908 to 1909 he was in charge of the Stannery Hills Hospital.

In 1910 he was appointed to the Eldersvold District Hospital and practised in that district for twenty years. He spent most of his leisure studying the Queensland lung-fish (*Neoceratodus forsteri*) and, after years of patient research he succeeded in rearing them from the egg. He supplied morphologists and embryologists in Australia and abroad with abundant material of all stages

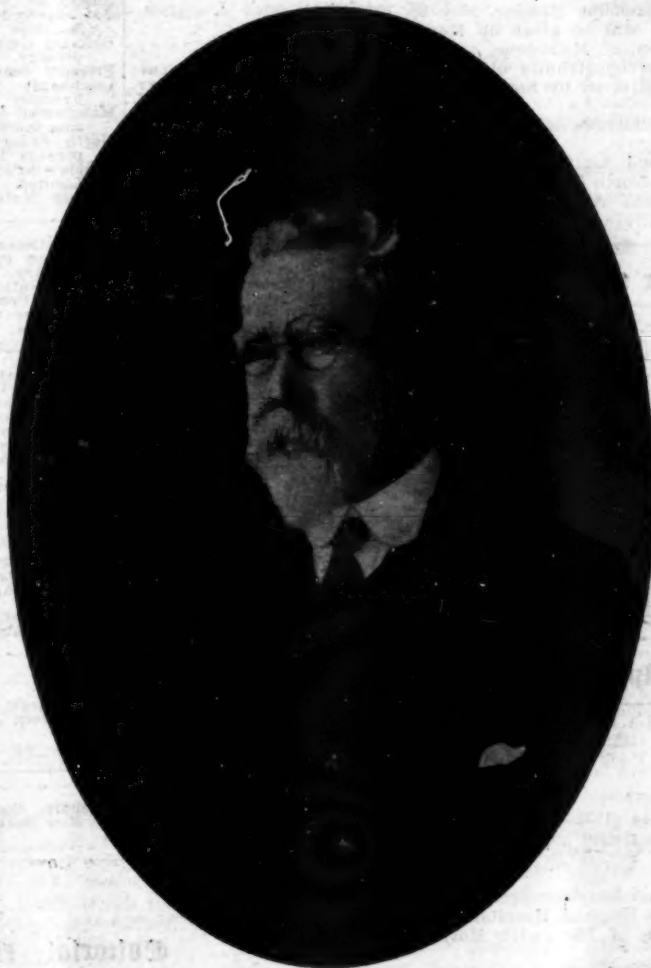
of this remarkable archaic animal. Convinced that the ceratodus was gradually dying out, he devised schemes for its preservation from extinction, but to his lasting regret no government or scientific society to which he applied would agree to give the necessary financial support. The development of the cotton-growing industry also interested him keenly, and by hybridization he produced several good varieties of cotton. While at Eldersvold he demonstrated for the first time the presence of herpetomonads (flagellate protozoa allied to the trypanosomes) in the juices of certain Australian plants.

Always a staunch advocate for the Australian aborigines and a sympathetic observer of their habits, he had as a young man published papers dealing with nardoo and bungwall, aboriginal food plants. In 1930 he accepted the position of medical officer to the aboriginal settlement at Palm Island. He was intensely disappointed at the conditions he found there and appalled by the high death rate. After his retirement in 1932 he published a pamphlet entitled "Reminiscences of Palm Island", and wrote several newspaper articles, in which

he pleaded for better food and treatment of the unfortunate aboriginal members of the community.

In 1932 he moved to Wallaville, on the Burnett River, where he practised and resumed his interrupted studies of ceratodus. He died on November 12, 1933, after a five days' illness following a cerebral hemorrhage. He is survived by his wife, a son and a daughter.

Bancroft's knowledge of Australian plants and animals was probably unique. All groups interested him, and many botanists and zoologists are indebted to him for fine collections. The large number of organisms to which the specific name *bancrofti* is attached are a monument to his industry as a collector. He never spared himself in the service of science, and his modest, unassuming nature



ended him to all. He was a life member of the Royal Society of Queensland, an honorary associate member of the Royal Zoological Society of New South Wales, and in 1923 he was elected a corresponding member of the Zoological Society of London. He was a member of the Council of the Acclimatization Society.

NOTICE.

Annual Post-Graduate Course in Adelaide.

THE Adelaide Permanent Post-Graduate Committee announces that the annual post-graduate course will be held during the week commencing Monday, May 28, 1934. The two Stirling Lectures will be given on May 30 and June 1 by Dr. S. O. Cowen, of Melbourne, and members of the course will have the opportunity of attending the Listerian Oration, to be delivered by Sir Henry Newland on May 31.

Further details of the syllabus of the course will be published at a later date.

Intending members should notify either of the Joint Honorary Secretaries, 188, North Terrace, Adelaide, or the Lay Secretary of the South Australian Branch of the British Medical Association, 178, North Terrace, Adelaide.

Diary for the Month.

- APRIL 17.—Tasmanian Branch, B.M.A.: Council.
 APRIL 17.—New South Wales Branch, B.M.A.: Ethics Committee.
 APRIL 18.—Western Australian Branch, B.M.A.: Branch.
 APRIL 19.—New South Wales Branch, B.M.A.: Clinical Meeting.
 APRIL 24.—New South Wales Branch, B.M.A.: Medical Politics Committee.
 APRIL 25.—Victorian Branch, B.M.A.: Council.
 APRIL 26.—South Australian Branch, B.M.A.: Branch.
 APRIL 26.—New South Wales Branch, B.M.A.: Branch.
 APRIL 27.—Queensland Branch, B.M.A.: Council.
 MAY 1.—Tasmanian Branch, B.M.A.: Council.
 MAY 2.—Western Australian Branch, B.M.A.: Council.
 MAY 2.—Victorian Branch, B.M.A.: Branch.
 MAY 3.—South Australian Branch, B.M.A.: Council.
 MAY 4.—Queensland Branch, B.M.A.: Branch.
 MAY 7.—New South Wales Branch, B.M.A.: Organisation and Science Committee.
 MAY 8.—Tasmanian Branch, B.M.A.: Branch.
 MAY 8.—New South Wales Branch, B.M.A.: Executive and Finance Committee.
 MAY 11.—Queensland Branch, B.M.A.: Council.

Medical Appointments.

Dr. John Halliday (B.M.A.) has been appointed as a Member of the Boards of Official Visitors to the Mental Hospitals at Parramatta, Cook's River and Rydalmere, New South Wales.

Dr. Thomas Dixon Hughes (B.M.A.) has been appointed a Member of the Nurses' Registration Board of New South Wales, in pursuance of the Nurses' Registration Act, 1924.

Dr. J. D. Russell (B.M.A.) has been appointed Director of The Armidale and New England Hospital, New South Wales, under the provisions of The Public Hospitals Act, 1929-1933.

Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, locum tenentes sought, etc., see "Advertiser", pages xviii, xix and xx.

LAUNCESTON PUBLIC HOSPITAL, LAUNCESTON, TASMANIA: Resident Medical Officer (male).

ROCKHAMPTON HOSPITAL, ROCKHAMPTON, QUEENSLAND: Resident Medical Officer.

STATE PUBLIC SERVICE COMMISSIONER, QUEENSLAND: Medical Officer.

TIDOOBURRA DISTRICT HOSPITAL, TIDOOBURRA, NEW SOUTH WALES: Resident Medical officer.

Medical Appointments: Important Notice.

MEDICAL practitioners are requested not to apply for any appointment referred to in the following table without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, Tavistock Square, London, W.C.1.

| BRANCH. | APPOINTMENTS. |
|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Australian Natives' Association. Ashfield and District United Friendly Societies' Dispensary. Balmmain United Friendly Societies' Dispensary. Friendly Society Lodges at Casino. Leichhardt and Petersham United Friendly Societies' Dispensary. Manchester Unity Medical and Dispensing Institute, Oxford Street, Sydney. North Sydney Friendly Societies' Dispensary Limited. People's Prudential Assurance Company Limited. Phoenix Mutual Provident Society. |
| NEW SOUTH WALES: Honorary Secretary, 135, Macquarie Street, Sydney. | |
| VICTORIAN: Honorary Secretary, Medical Society Hall, East Melbourne. | All Institutes or Medical Dispensaries. Australian Prudential Association, Proprietary, Limited. Mutual National Provident Club. National Provident Association. Hospital or other appointments outside Victoria. |
| QUEENSLAND: Honorary Secretary, B.M.A. Building, Adelaide Street, Brisbane. | Brisbane Associated Friendly Societies' Medical Institute. Chillagoe Hospital. Members accepting LODGE appointments and those desiring to accept appointments to any COUNTRY HOSPITAL are advised, in their own interests, to submit a copy of their agreement to the Council before signing. Lower Burdekin District Hospital, Ayr. |
| SOUTH AUSTRALIAN: Secretary, 207, North Terrace, Adelaide. | Combined Friendly Societies, Clarendon and Kangarilla districts. All Lodge Appointments in South Australia. All Contract Practice Appointments in South Australia. |
| WESTERN AUSTRALIAN: Honorary Secretary, 205, Saint George's Terrace, Perth. | All Contract Practice Appointments in Western Australia. |
| NEW ZEALAND (Wellington Division): Honorary Secretary, Wellington. | Friendly Society Lodges, Wellington, New Zealand. |

Editorial Notices.

MANUSCRIPTS forwarded to the office of this journal cannot under any circumstances be returned. Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary be stated.

All communications should be addressed to "The Editor", THE MEDICAL JOURNAL OF AUSTRALIA, The Printing House, Seamer Street, Glebe, New South Wales. (Telephones: MW 2651-2.)

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